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ABSTRACT

This 2-part document is designed to aid school districts in the implementation of a planning programing budgeting system. The first part of the manual contains (1) statements of policy, (2) a master flowchart, (3) organization and functions of a PPBS system, (4) a flowscript of procedures, (5) job outlines, and (6) supplementary appendix material. This first part of the manual represents the "what-to-do" when implementing PPBS, while the next part attacks the problem of "how-to-do-it." The second part consists of five "packages" to construct the model. The model includes two types of training materials for each of the basic project components of planning, programing, budgeting, and an instructional system analytical study. Each package of the model includes a self-instructional concept lesson that has been designed to instruct personnel on the concepts of each component. Each package further contains a set of required tasks. The guidance materials consist of worksheets, narrative instructions, examples, forms, flowcharts, and work schedules. The materials included in the model, the authors argue, should permit school officials to make immediate incremental

manual

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an operational model for the application of PLANNING-PROGRAMMING-BUDGETING SYSTEM to local school districts

EA 004 577

WESTERN NEW YORK PPBS MODEL

ED 066832

AN OPERATIONAL MODEL FOR THE APPLICATION OF PLANNING-PROGRAMMING-BUDGETING SYSTEMS TO LOCAL SCHOOL DISTRICTS

Post-Pilot-Test Version

June, 1972

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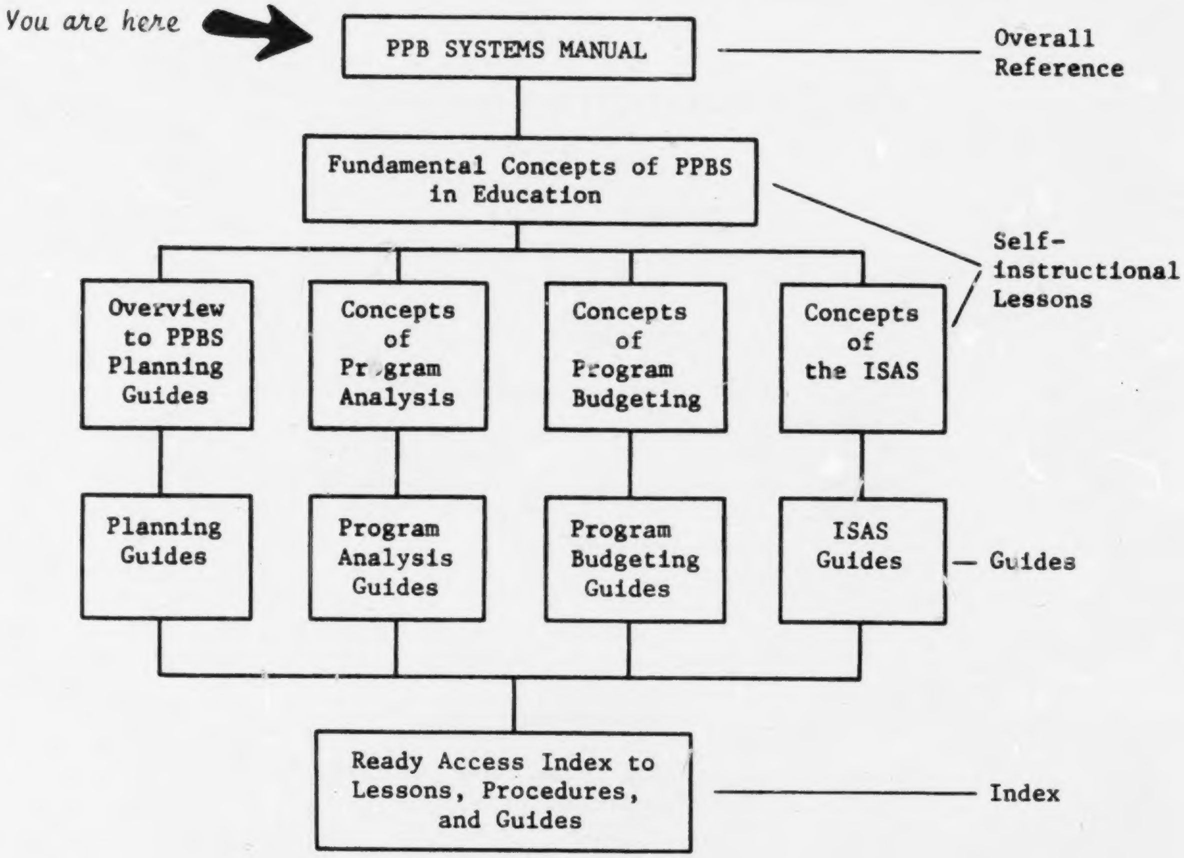
WESTERN NEW YORK PPBS TRAINING PACKAGE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PREFACE

One of the unique features of this project has been the extent to which it has brought together individuals from a variety of educational agencies and directed their attention at the problems it identified and at the solutions it proposed. Obviously, the project's staff must assume the sole responsibility for the version of the model and related training materials presented in these volumes. However, at the local school district level many individuals assisted in the development of the model and its pilot-testing. The staff is particularly grateful to the four pilot school districts which dedicated considerable staff time and resources for two years to this project. Dr. Merton Haynes of Iroquois, Dr. Carl Markello and Mr. Carmen Catuzzi of West Seneca, Mr. Ted Callisto of East Aurora, and Mr. Joseph Riordan of Maryvale served as in-district Project Coordinators and made wise and valuable suggestions to the project staff during the course of the project. Dr. Samuel Bennett of Maryvale made the start of the project possible by agreeing to have his district serve as the initial pilot district. Numerous other community representatives, teachers, and administrators also contributed their time and experience to the development and testing of this project's materials. More than one hundred local school officials were directly involved during its duration.

At the regional level, the project staff is grateful for the support offered to them by Dr. Robert Lamitie, Director of the Western New York Regional Planning Center, by Dr. Clifford Crooks, Superintendent, and by Dr. Robert Sekowski, Director of Instructional Services, both of the Board of Cooperative Educational Services, Erie #1. These gentlemen recognized the potential value of the materials of this project as services to local school districts and they actively supported and encouraged the staff during the course of the project. Also at the regional level, the contribution of the Department of Educational Administration of the State University of New York at Buffalo should not be overlooked. This department completed two major background studies which were of inestimable value in the development of the PPBS Manual, and personnel from the Department assisted in the testing, evaluation, and revision of the training materials.

The primary source of financial support for this project came from the New York State Education Department. We are particularly indebted to officials at the State Education Department's Center on Planning and Innovation who supported this project during its three years of operation: Dr. Norman Kurland, Director, and Mr. Edward Strack and Mr. Donald Gardner, Coordinators. Also, this project's staff received valuable advice and assistance from the evaluation team from the New York State Education Department: Dr. August Cerritto, Dr. Robert O'Reilly, and Mr. James Sullivan.

We are also particularly grateful for the outstanding work done on behalf of this project by Miss Lucille Graczyk, who managed the office which produced all of the materials of this project and who personally completed final typing of the systems manual.

Finally, we are grateful for the many ways in which Claude Lineberry of Harless Educational Technologists contributed to the development of this project's final products. Mr. Lineberry displayed a competence and a professional attitude during the term of his contracted services which made our association with him a pleasant experience, both personally and professionally.

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INTRODUCTION

Background for the Project

The complete Western New York Planning-Programming-Budgeting System (PPBS) Model includes six separate components. The material in this volume, a systems manual, details the "what-to-do" steps to be followed when a school district attempts to implement PPBS. This is an operational model. Four years ago, when this project started, the observation was made that PPBS seemed to make a great deal of sense, and possibly could lead to improvements in the management of local school districts. However, most discussion of PPBS was--and continues to be--at the descriptive level. The concern of this project was the important problem of implementation, and the materials that make up the complete Western New York PPBS Model have been designed to assist those school officials who want to do PPBS.

Users of this model can use the self-instructional lesson on the concepts of PPBS (Package 1) for an introduction to the conceptual views of PPBS that guided this project's efforts. They will find that the materials place primary emphasis on the planning and programming aspect of PPBS, and not on budgeting. PPBS does concern itself with restructuring budget codes and with new budget formats, but one does not diminish the importance of these activities when one notes that PPBS should have major impact on the following school district activities: determining needs, setting goals and objectives, program analysis and evaluation, and the use of information in decision making.

The scope of school district activities to be included in a school district's effort to implement PPBS is broad. Considering the number of people and the complexity of the activities included, the decision to implement PPBS is not one to be made capriciously. All school district programs--instructional and non-instructional--are subjected to review and potential redesign subsequent to a Board of Education's decision to use PPBS. PPBS is new to many school districts. It represents a more systematic approach to planning, decision making, program documentation, staff and pupil involvement, and evaluation. PPBS could mean major changes in organizational patterns of communication and coordination, and it opens possibilities for revising organizational structure. These are complex matters.

Nature of this Manual

This systems manual was developed to aid school districts in implementing and operating a complex PPB system. It is a carefully planned and consciously designed school district planning and decision-making system. It contains, in specific detail, the following:

(1) Statements of policy. The policy statements put the Board of Education on record as favoring the implementation and operation of a PPB system. They provide the legal authority for the chief school officer to make the organizational adjustments necessary for implementation activities, and they define for him the degree of commitment the Board has to the PPBS effort. They serve as guides to the complex decision-making processes that follow the Board's decision to implement PPBS.

(2) Master flowchart. The master flowchart contains a complete picture of the way in which the parts of the system fit together to produce documents containing useful information at a time when major decisions must be made. It displays the decision-making sequence of the

entire operational PPB system.

(3) Organization and functions. The manual's organizational chart depicts the major organizational units involved in the operation of the PPB system. Unfortunately, the use of the chart format conveys a bureaucratic and static image of the system's operation. The reader is reminded that the administrative system, and the relationships among the actors in it, is a dynamic entity. The Functions Lists which follow the organization chart detail the specific functions of each unit needed to carry out the operation of this PPB system.

(4) Flowscript. The procedures of this part contain the detailed action steps required to operate the PPB system which this manual models. The procedures are divided into four sections: planning, programming, budgeting, and conducting an instructional system analytical study. Each section is introduced by a Master Procedure which summarizes the action steps of the procedures which follow for that component.

These procedures are the heart of the administrative system. Each procedure assigns specific responsibility to an actor for the completion of a task vital to the operation of the entire system. Each step in a Flowscript procedure picks up the action where the previous step left off and carries it to the next step.

The use of Flowscript procedures to follow the action through to the completion of a task facilitates coordination and communication among those responsible for the implementation of the entire PPB system. Each actor develops an understanding of how his responsibilities relate to others in the system, and how his activity contributes to the operation of the entire system.

The reader should note that each Flowscript procedure is a complete subsystem of the administrative system. The action of each procedure leads to the achievement of a specific objective. This gives the model a modular nature. That is, school officials need not implement the entire model at once. Because of its modular nature, they can select which procedure to implement initially, adapt them to their local situation, and use them as the beginning of their own systems manual. This is an important characteristic. Most school districts would be faced with chaos if school officials decided to implement the entire PPBS model in one year. The modular nature of this model permits them to implement PPBS cautiously and in stages.

Many readers of this manual will take exception to the designations used as actors under the responsibility column in each procedure. Not all school districts have positions corresponding to those titles used. Those readers are urged to regard what is done rather than who does it. For purposes of this model, the action is more important than the actor. The action of each procedure can be adapted to the positions available in each school district.

(5) Job Outlines. Job Outlines detail the steps one actor must carry out in order to complete one specific task. They differ from Flowscript in the degree to which they become specific and by the fact that each has only one actor. A Job Outline is written when a step in a procedure is a complicated one, requiring detailed instructions for the actor who must complete that step.

(6) Supplementary appendix material. The variety of material which is found in the appendix has been included as a further aid to those responsible for implementing PPBS. Detailed forms and worksheets provide illustrations of PPBS-type documentation; sample questions for community,

staff, and pupil questionnaires provide at least a starting point for districts interested in conducting a survey; and many other very specific points of information and illustration should prove to be valuable as starting points for collecting more information or for a more complete understanding of issues raised in the manual itself.

The systems manual outlined above is the Western New York Project's view of what you do when you implement PPBS. The management objectives for the implementation of PPBS can be gleaned from a review of the systems manual; however, the Western New York Model is illustrative only! School officials in agreement with this project's view of what PPBS is are cautioned that their initial implementation effort should be directed at adapting components of the Western New York Model to the particular conditions of their school districts. Further, a systems manual is a dynamic document. It is a plan of how planning and decision making is to occur. The reader is reminded that planning and decision making have developing technologies; therefore, the systems manual itself must be constantly evaluated and revised to reflect changes in this technology. The systems manual must also be revised given information on its operational effectiveness.

PPBS Training Packages

The systems manual represents the "what-to-do" when implementing PPBS. The other volumes of this PPBS performance system attack the problem of "how-to-do-it." For purposes of development and implementation, this project has assumed that the following are the major components of an operating PPB system: a planning component, a programming component, a budgeting component, and an instructional system analytical study component (a modified cost-effectiveness analysis technique). In order for school personnel to carry out the steps listed in the procedures for any of the above components, they will need two types of training. The first consists of the need for a general understanding about the concepts of each component in order to complete assigned tasks. The second type of training concerns information which they will need to know at the time that they must perform specific tasks; it will not be necessary to recall this latter type of information since the learning will be guided.

To solve this two dimensional training problem, this Model includes two types of training materials for each of the components. Each package of this model includes a self-instructional concept lesson which has been designed to instruct personnel, on an individual basis, in the concepts of each component. Each package further contains a set of guidance materials which guide specific actors from the beginning to the conclusion of required tasks. The guidance materials consist of worksheets, narrative instructions, examples, forms, flowcharts, and work schedules. These packages (two-five) have been delivered to you in a loose leaf, three-ring binder so that they can be easily removed and reproduced in sufficient quantities.

Package One of the set of training materials consists of a self-instructional concept lesson on the general concepts of PPBS, a users guide and index, and a glossary of terms. The self-instructional concept lesson in this package should be taken by all individuals who will be involved in the district's PPBS effort. This will permit them all to see how the specific tasks each is asked to perform contribute to the overall project. Only those directly involved in planning, programming, budgeting, or in doing an instructional system analytical study need to complete the training materials for each of these components.

Final Note

The materials included in this operational PPBS model represent the efforts of this project's staff for the past three years. The model is completely manual. School districts, therefore, will not need to have computer hardware to implement it. This is not because the project staff believes that computers have no role in implementing PPBS; on the contrary, computer programs can be extremely useful in data collection, analysis, and reporting. More sophisticated versions of how to implement and operate PPBS can be developed at a future date. The materials included in this model, properly used, will permit school officials to make immediate incremental gains in planning and decision-making practices--and, hence, the quality of educational programs provided children. Our staff knows that school districts will gain benefits from the work of this project; but they also recognize the need for continued development work.

XVIII

Part I

STATEMENTS
OF
POLICY

Western N. Y. PPBS Model	POLICY	Date 6-30-72	Policy No. 1

SUBJECT: Operating Planning-Programming-Budgeting System

1. The Board of Education recognizes the merits of PPBS for management, planning, and evaluation. Accordingly, it is the policy of the Board to implement and operate a district-wide planning-programming-budgeting system.
2. Planning for a school district requires demographic, financial, and curricular data forecasts for a minimum of five years. The projections or forecasts are used to estimate the future consequences of current year decisions.
3. The activities of the school district are grouped into programs according to their common contribution to explicit objectives. All of the activities of the school can be grouped into five to ten program categories which provide a suitable framework for considering and resolving major questions of mission and operation. Program categories can be further subdivided into more basic units to permit more refined evaluation and for administrative decision making.
4. Although many school activities are of a continuing nature, it is the policy of the Board of Education that no educational program should be thought of as being continued forever. Each program has to be considered on its own merit each year and continued only if it meets the priority needs of the school district.
5. The chief school officer, being the educational leader and chief

administrator in the school district, recommends to the Board of Education policy changes that allow more efficient and effective school district operation. It is the responsibility of the chief school officer to make recommendations concerning which programs, program elements, or alternatives should be selected by the Board of Education to accomplish the school district objectives.

6. The implementation and operation of a PPBS system requires supervision and coordination. The Board of Education, each year, designates a central office administrator (usually the Assistant Superintendent for Research and Planning) to coordinate the operation of a PPB system. His responsibility is to coordinate the operation of the PPB system in such a manner that the necessary data are collected, report deadlines are met, information is directed to the proper individuals, and arrangements are made for other necessary details that will enable the PPB system to function.

7. The Board of Education recognizes the value of participative decision making. Administrators, teachers, students, and district residents are to have inputs into planning process. The Board recognizes that ideas may come from any source. The merits of the idea are to be considered rather than its source.

8. The Board of Education establishes priorities on school district objectives. The educational needs of the community have to be monitored and analyzed before district objectives are ranked. Members of the district staff (including students), personnel from other local

school districts, college educators, national scholars, and potential employers are to be contacted for inputs when establishing the objectives and setting priorities for the school district.

9. The Board regards the District Planning Council as an important source of information about community perceptions on local educational issues. The Board also values the advice which the District Planning Council is qualified to offer. However, the Board cannot, under any circumstances, surrender its legal responsibility or authority in the operation of the school district. The District Planning Council, therefore, can only be advisory in nature. The Board reserves its prerogatives in the resolution of all matters pertaining to the local school district.

10. While the Board recognizes the merits of the PPBS technique as a management, planning, and evaluation device, it does not expect any technique to preclude the exercise of judgment on the part of members of the district's staff. The Board expects the processes of the PPB system to assist in the clarification of issues and to reduce the uncertainties associated with the decision-making process. However, the Board expects the experience, judgment, wisdom, and intuition of its professional staff will continue to play a significant role in the resolution of local educational issues.

11. The Board of Education values the merits of conducting analyses of all activities in the school district. It is expected that all programs in the school district will undergo continuing analysis as part of a

normal routine. In areas where problems arise or where the need for innovative approaches is recognized, more intensive analysis will be conducted (subject to Board approval) through the use of the Instructional Systems Analytical Study procedures.

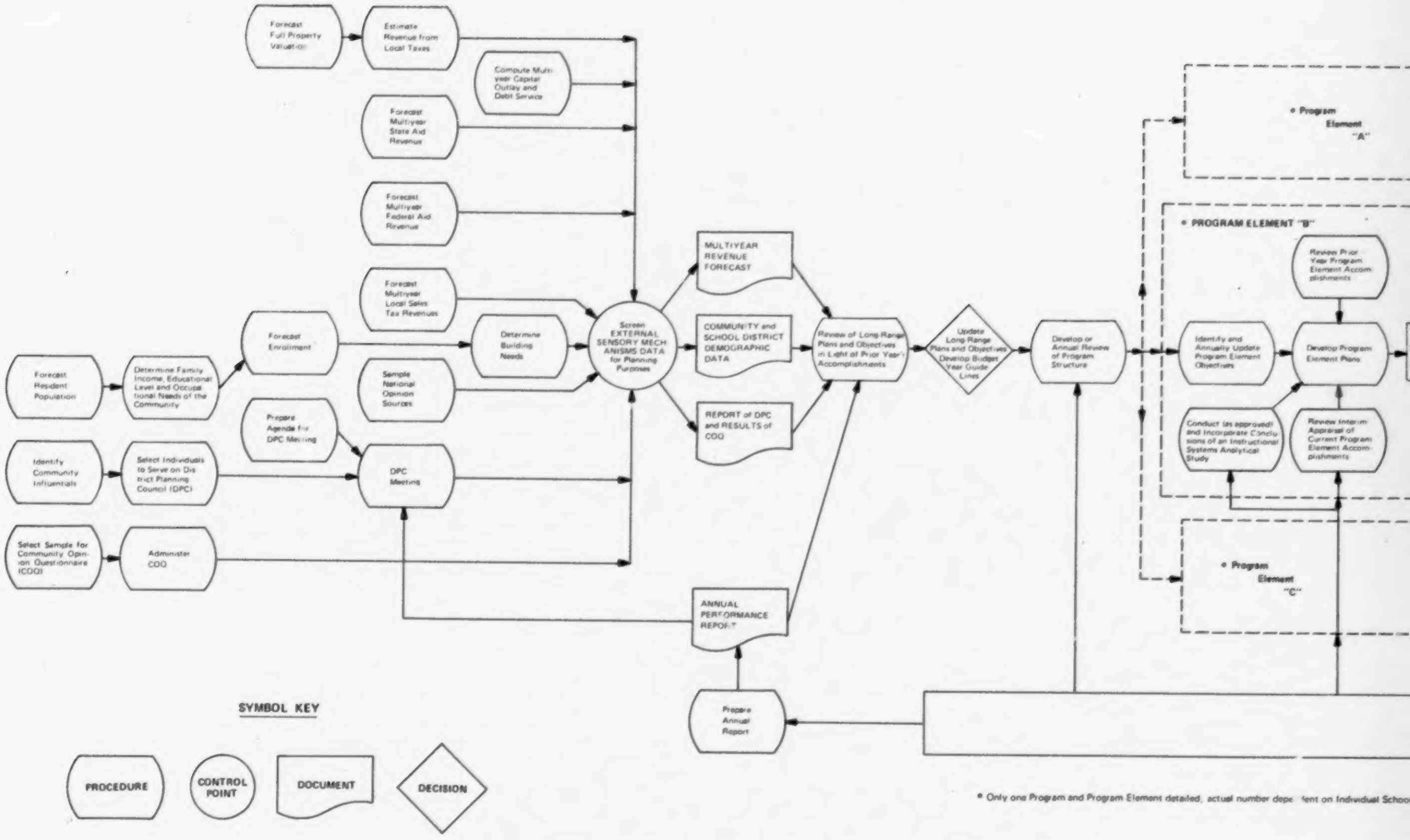
12. In September of each year the Board of Education will present a performance report to the community. The report will include the previous school year's objectives, accomplishments, and expenditures.

13. Under the direction of the Board of Education, the district's professional staff will prepare and disseminate a district budget in program format. A traditional line-item budget also will be prepared as long as it is legally mandated.

14. The Board recognizes that in order for this PPB system to benefit the district, school personnel must be trained in the operation of its components. The Board also recognizes that a PPB system must be dynamic, responding to changes in district needs and to advances in planning and decision technologies. Therefore, the Board directs the chief school officer and his staff to plan and operate a continuous in-service program for school personnel which insures that they will become--and will remain--competent to carry out tasks assigned to them in the district's PPBS cycle.

Part II

MASTER FLOWCHART
OF AN
OPERATIONAL PLANNING-PROGRAMMING-BUDGETING SYSTEM MODEL


Forecast Full Property Valuation
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Forecast Multiyear State Aid Revenue
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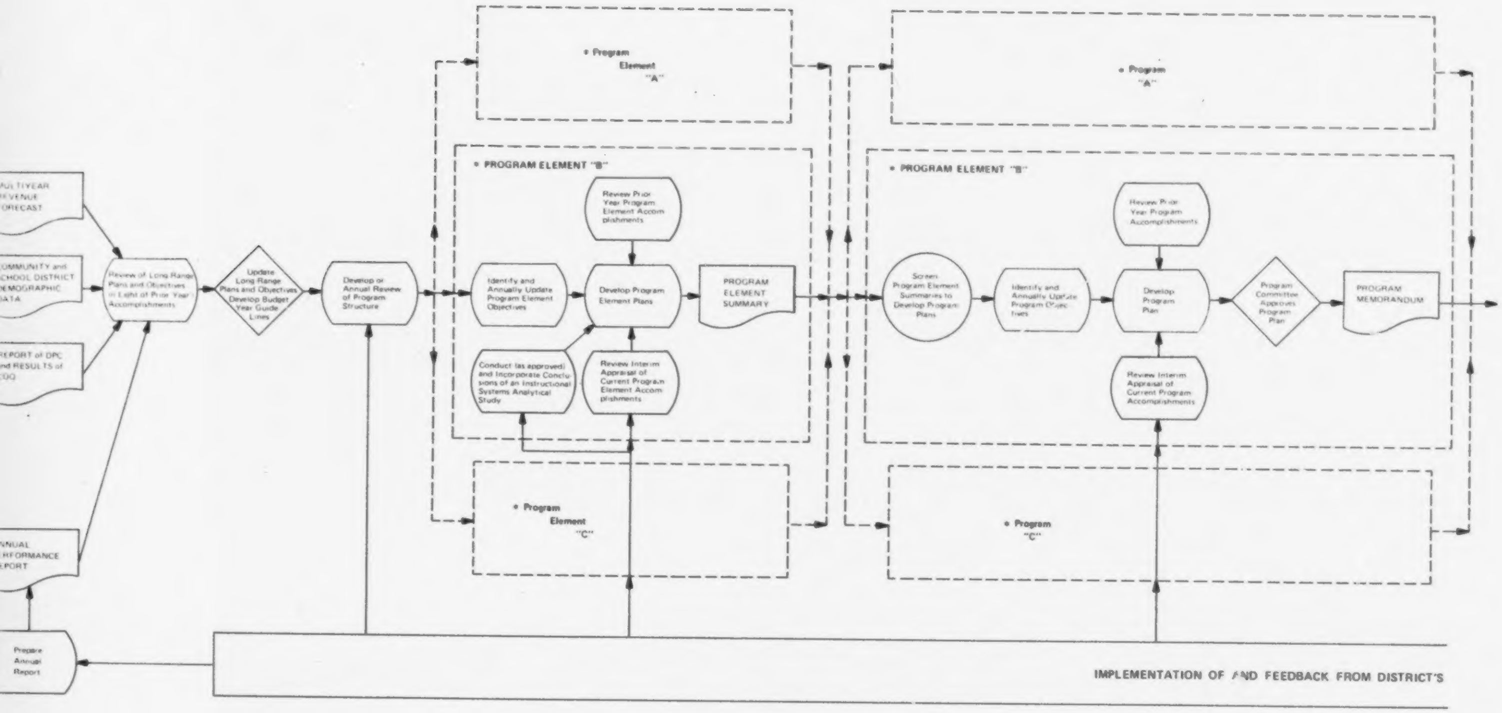
Forecast Multiyear Local Sales Tax Revenues
Forecast Enrollment
Determine Building Needs
Sample National Opinion Sources
Forecast Resident Population
Determine Family Income, Educational Level and Occupational Needs of the Community
Prepare Agenda for DPC Meeting
Identify Community Influentials
Select Individuals to Serve on District Planning Council (DPC)
DPC Meeting
Select Sample for Community Opinion Questionnaire (COQ)
Administer COQ
Screen EXTERNAL SENSORY MECHANISMS DATA for Planning Purposes
MULTIYEAR REVENUE FORECAST
COMMUNITY and SCHOOL DISTRICT DEMOGRAPHIC DATA
REPORT of DPC and RESULTS of COQ
Review of Long-Range Plans and Objectives in Light of Prior Year's Accomplishments
Update Long-Range Plans and Objectives Develop Budget Year Guide Lines
Develop or Annual Review of Program Structure
* Program Element "A"
* PROGRAM ELEMENT "B"
Review Prior Year Program Element Accomplishments
Identify and Annually Update Program Element Objectives
Develop Program Element Plans
Conduct (as approved) and Incorporate Conclusions of an Instructional Systems Analytical Study
Review Interim Appraisal of Current Program Element Accomplishments
* Program Element "C"
ANNUAL PERFORMANCE REPORT
Prepare Annual Report
SYMBOL KEY
PROCEDURE
CONTROL POINT
DOCUMENT
DECISION

* Only one Program and Program Element detailed, actual number dependent on Individual Schoo

Flowchart Detailing an Operational PLANNING,


* Program Element "A"
* PROGRAM ELEMENT "B"
* Program Element "C"
ULTIYEAR EVENUE ORECAST
OMMUNITY and CHOOL DISTRICT EMOGRAPHIC ATA
REPORT of DPC nd RESULTS of EOQ
NNUAL RFORMANCE EPORT
Prepare Annual Report
Review of Long Range Plans and Objectives in Light of Prior Year Accomplishments
Update Long Range Plans and Objectives Develop Budget Year Guide Lines
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* PROGRAM ELEMENT "B"
* Program "C"
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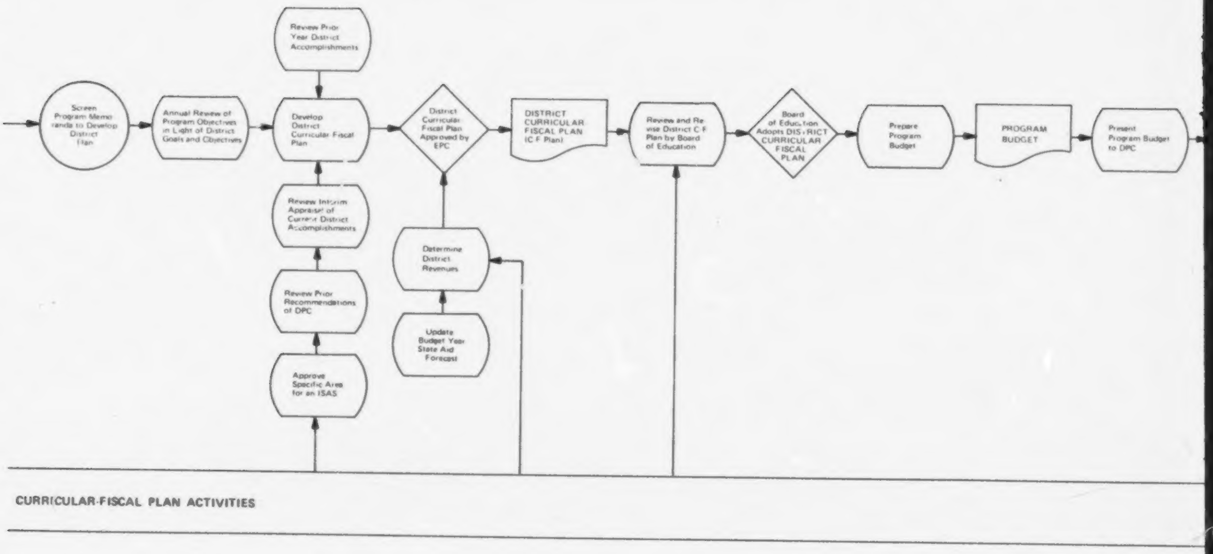
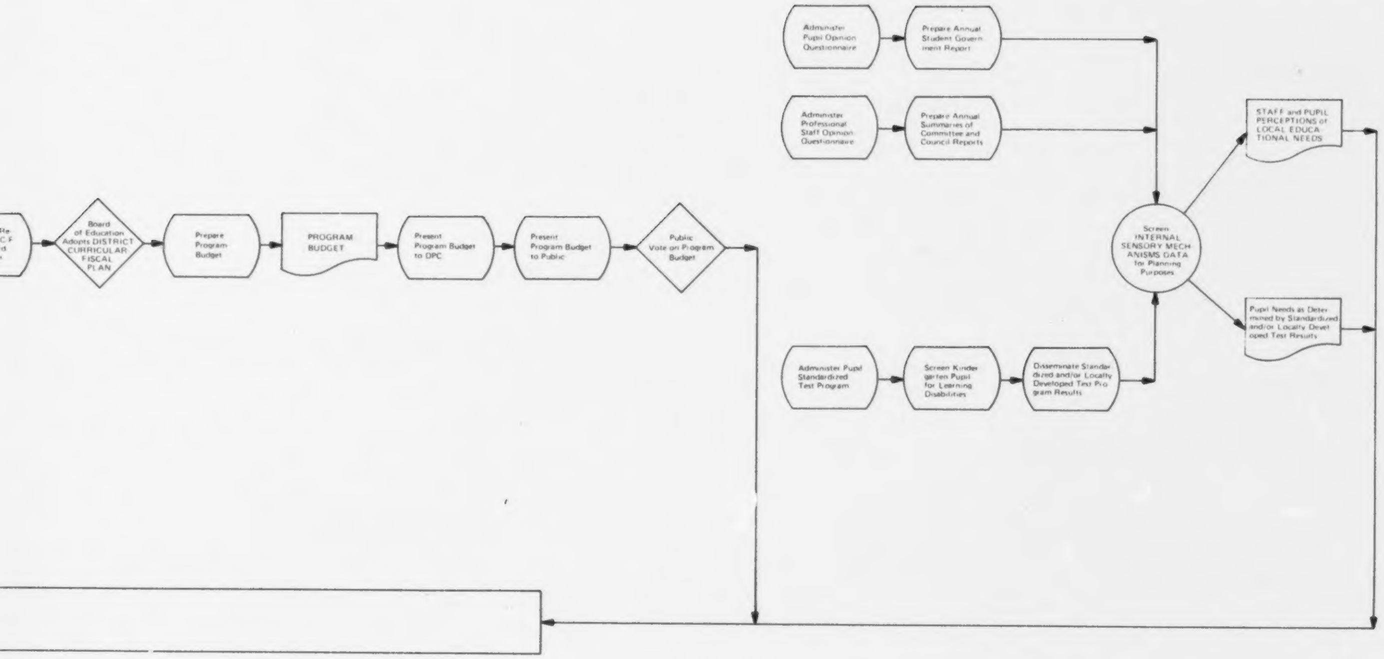
Review Prior Year Program Accomplishments
Develop Program Plan
Review Interim Appraisal of Current Program Accomplishments
Program Committee Approves Program Plan
PROGRAM MEMORANDUM
IMPLEMENTATION OF AND FEEDBACK FROM DISTRICT'S

* Only one Program and Program Element detailed, actual number dependent on Individual School District Program Structure

PROGRAMMING, BUDGETING SYSTEM Model


Review Prior Year District Accomplishments
Screen Program Memoranda to Develop District Plan
Annual Review of Program Objectives in Light of District Goals and Objectives
Develop District Curricular Fiscal Plan
District Curricular Fiscal Plan Approved by EPC
DISTRICT CURRICULAR FISCAL PLAN (C F Plan)
Review and Revise District C F Plan by Board of Education
Board of Education Adopts DISTRICT CURRICULAR FISCAL PLAN
Prepare Program Budget
PROGRAM BUDGET
Present Program Budget to DPC
Review Interim Appraisal of Current District Accomplishments
Determine District Revenues
Review Prior Recommendations of DPC
Update Budget Year State Aid Forecast
Approve Specific Area for an ISAS
CURRICULAR-FISCAL PLAN ACTIVITIES

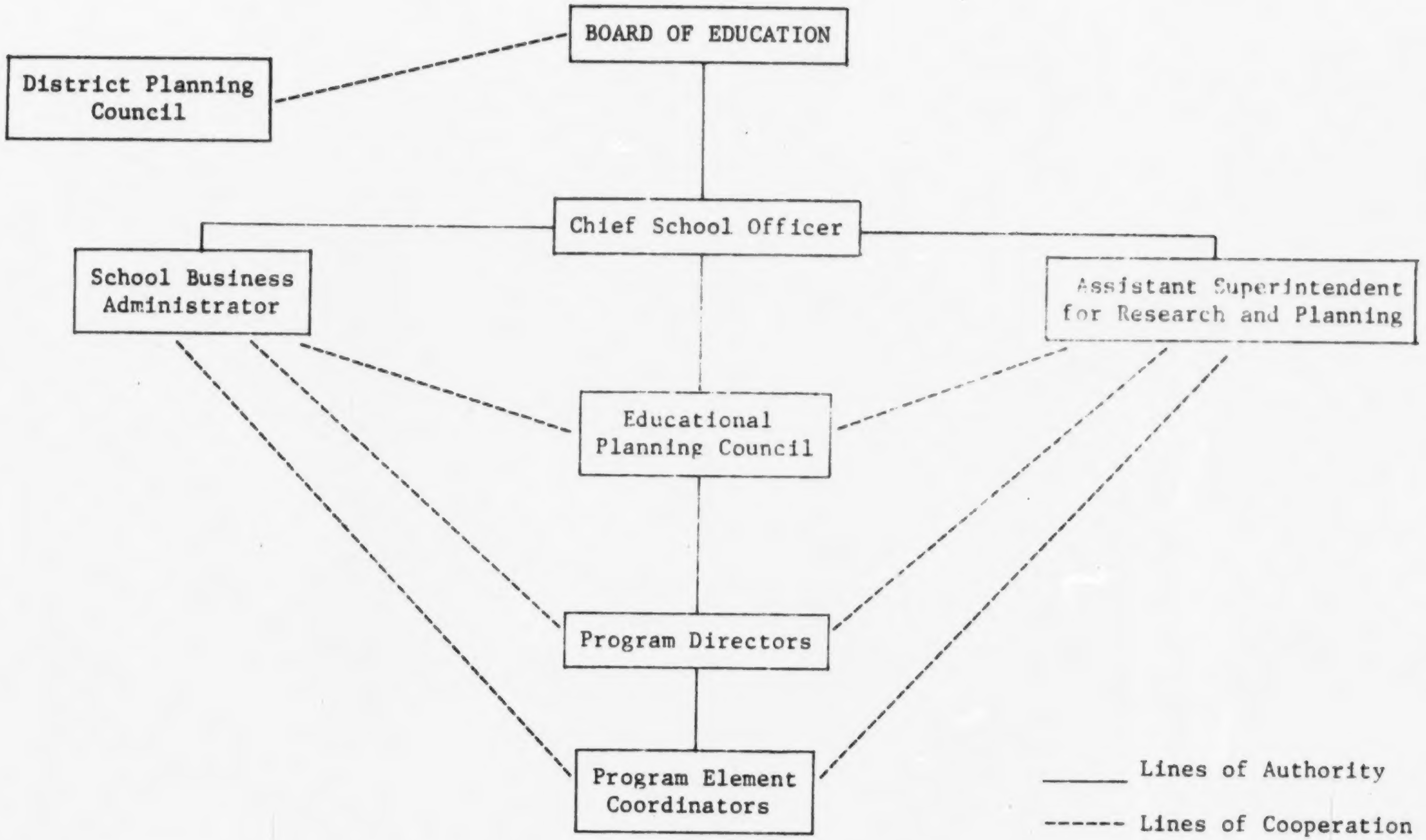

Re
C F
d
Board of Education Adopts DISTRICT CURRICULAR FISCAL PLAN
Prepare Program Budget
PROGRAM BUDGET
Present Program Budget to DPC
Present Program Budget to Public
Public Vote on Program Budget
Administer Pupil Opinion Questionnaire
Prepare Annual Student Government Report
Administer Professional Staff Opinion Questionnaire
Prepare Annual Summaries of Committee and Council Reports
Administer Pupil Standardized Test Program
Screen Kindergarten Pupil for Learning Disabilities
Disseminate Standardized and/or Locally Developed Test Program Results
Screen INTERNAL SENSORY MECHANISMS DATA for Planning Purposes
STAFF and PUPIL PERCEPTIONS of LOCAL EDUCATIONAL NEEDS
Pupil Needs as Determined by Standardized and/or Locally Developed Test Results

Part III

ORGANIZATION
AND
FUNCTIONS

9

ORGANIZATION FOR PPBS


BOARD OF EDUCATION
District Planning Council
Chief School Officer
School Business Administrator
Assistant Superintendent for Research and Planning
Educational Planning Council
Program Directors
Program Element Coordinators
Lines of Authority
Lines of Cooperation

Western N. Y. PPBS Model	FUNCTIONS	Date 6-30-72	Function No. 1
		Cancels None	

SUBJECT: Board of Education

1. Issues a policy statement to legitimize the implementation of PPBS.
2. Determines, after considering the recommendations of the district staff and District Planning Council, the appropriate goals and objectives for the district.
3. Approves a program structure for the district which facilitates the allocation of resources to, and the evaluation of, school district activities.
4. Presents the annual budget to district residents in a program format.
5. Presents an annual performance report to district residents.
6. Annually approves planning-programming-budgeting schedule of activities for the upcoming year.
7. Appoints members to the District Planning Council.

Western N. Y. PPBS Model	FUNCTIONS	Date 6-30-72	Function No. 2
		Cancels None	

SUBJECT: District Planning Council[1]

1. Reviews long-range fiscal and curricular needs of district as defined through operation of specific components of the district's PPB system.
2. Reports feelings of community about educational issues to Board of Education.
3. Assists in evaluation of long-range plans for the school district.
4. Reviews Board of Education approved district-wide objectives and their priorities prior to reviewing tentative annual budget.
5. Reviews district's tentative annual budget and makes recommendations for change to Board of Education.
6. Assists Board of Education in disseminating information about the school district and the annual budget to the community.
7. Establishes subcommittees as necessary to meet and conduct business assigned to committee of the whole.

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[1] See Flowscript Procedure No. 2 for a description of the District Planning Council and for a listing of its membership.

Western N. Y. PPBS Model	FUNCTIONS	Date 6-30-72	Function No. 3
		Cancels None	

SUBJECT: Chief School Officer

1. Provides active and visible leadership for implementation of PPBS.
2. Prepares agenda for meetings of District Planning Council.
3. Serves as Chairman of Educational Planning Council.
4. Recommends a district program structure to Board of Education.
5. Recommends school district philosophy, goals, objectives, and priorities to Board of Education.
6. Recommends annual program budget plan to Board of Education, within context of multi-year program budget.
7. Recommends district-wide PPBS policies to Board of Education.
8. Reports program performance to Board of Education annually.

Western N. Y. PPBS Model	FUNCTIONS	Date 6-30-72	Function No. 4
		Cancels None	

SUBJECT: School Business Administrator

1. Compiles approved program budget for district based on plans of program directors.
2. Executes district's annual program budget, within context of multi-year program budget.
3. Prepares five-year revenue forecast used in planning phase of planning-programming-budgeting cycle.
4. Prepares student population projections annually.
5. Accounts for district expenditures by programs and program elements.
6. Provides revenue consultant service to Educational Planning Council.
7. Coordinates all programs in Operational Support Program category.
8. Completes annual building needs report.
9. Assists program directors in annually updating the cost projections of the district's Curricular-Fiscal Plan.

Western N. Y. PPBS Model	FUNCTIONS	Date 6-30-72	Function No. 5
		Cancels None	

SUBJECT: Assistant Superintendent for Research and Planning

1. Coordinates the administration and analysis of the data gathering procedures of the Planning Component of the district's PPB system.
2. Coordinates the operation of the district's data files.
3. Prepares in consultation with Board of Education, Chief School Officer, School Business Administrator, Educational Planning Council, Program Directors, and Program Element Coordinators, the district's schedule for the annual cycle of planning, programming, and budgeting activities.
4. Provides consultant assistance to Chief School Officer, Educational Planning Council, Program Directors, and Program Element Coordinators upon their request, e.g. on pilot studies, statistical treatment, data gathering, and in-service training.
5. Reports annually to Chief School Officer and to Educational Planning Council on operation of district's planning, programming, budgeting system.
6. Allocates his limited time for in-district consultative assistance to programs in accordance with school district priorities.
7. Collects and stores demographic data in accordance with planning-programming-budgeting system specifications.
8. Coordinates administration of Community Opinion Questionnaire.
9. Collects names of community influentials in accordance with prescribed

procedures.

10. Coordinates conduct of annual school district census.

11. Exercises line authority over all programs in Instructional Support Program category.

Western N. Y. PPBS Model	FUNCTIONS	Date 6-30-72	Function No. 6
		Cancels None	

SUBJECT: Educational Planning Council[1]

1. Reviews district program structure and recommends desired changes to Chief School Officer.
2. Recommends changes in school system objectives and priorities to Chief School Officer.
3. Recommends distribution of school district resources among programs to Chief School Officer.
4. Evaluates alternative strategies developed by program directors and by program element coordinators, and approves requests for an Instructional Systems Analytical Study.
5. Prepares long-range district plans based upon data collected through procedures of Planning Component.
6. Assists Chief School Officer in the development of statements of district-wide policies.
7. Reviews program performance periodically.

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[1] Consists of Chief School Officer, Assistant Superintendent for Research and Planning, School Business Administrator, Program Directors, and student and teacher representatives.

17

Western N. Y. PPBS Model	FUNCTIONS	Date 6-30-72	Function No. 1
		Cancels None	

SUBJECT: Program Director

1. Recommends objectives for his program to Educational Planning Council.
2. Develops, in consultation with Program Element Coordinators, alternative strategies to achieve his program objectives.
3. Recommends preferred strategies to Educational Planning Council.
4. Prepares and annually updates Program Memorandum for his program.
5. Recommends spending plan for his program to Educational Planning Council during preparation stage of annual budget.
6. Approves allocation of resources within his program.
7. Reports program achievement to Educational Planning Council at least once each year.
8. Annually updates the Curricular-Fiscal Plan for his program with the advice and assistance of the Assistant Superintendent for Research and Planning and the School Business Administrator.
9. Directs the execution of plans approved for his program.

Western N. Y. PPBS Model	FUNCTIONS	Date 6-30-72	Function No. 8
		Cancels None	

SUBJECT: Program Element Coordinator

1. Recommends objectives for his program element to his Program Director.
2. Assists Program Director in the development of alternative strategies for his program.
3. Reports program element achievement at least once each year.
4. Assists Program Director in the preparation of and the updating of Program Memorandum.
5. Assists Program Director in developing a rational budget strategy during both the preparation stage and the execution stage of the annual budget.
6. Prepares Program Element Summary for his program element annually.

Western N. Y. PPBS Model	FUNCTIONS	Date 6-30-72	Function No. 9
		Cancels None	

SUBJECT: Program Committee[1]

1. Analyzes and discusses all Program Element Summaries within their program.
2. Develops and recommends to the Program Director a Curricular-Fiscal Plan for their program.
3. Assists the Program Director in the development of alternative strategies for their program.
4. Assists Program Director in the preparation of and the updating of the Program Memorandum.
5. Makes necessary revisions in the Curricular-Fiscal Plan for their program based upon the recommendations of the Educational Planning Council, the Chief School Officer, and/or the Board of Education.
6. Recommends, to the Program Director, Program Elements which have been identified as having the greatest need for an Instructional Systems Analytical Study.
7. Assists Program Director to resolve matters of concern on a program level.
8. Assists the Program Director in the coordination of program activities.
9. Assists Program Director in setting priorities within their program.

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[1] Each program has a Program Committee. It is chaired by the Program Director and includes Program Element Coordinators.

10. Screens issues to be considered by the Educational Planning Council.

11. Assists Program Director in the evaluation of their program's activities.

Part IV

PROCEDURES

Western N. Y. PPBS Model	MASTER PROCEDURE	Date 6-30-72	Procedure: Planning
		Cancels None	

SUBJECT: Updating Long-Range Plans and Objectives and Developing Budget Year Guidelines

Responsibility	Action
Assistant Superintendent for Research and Planning	1. Selects sample for the administration of Community Opinion Questionnaire (COQ).
	2. Administers COQ.
	3. Summarizes data obtained from COQ for screening by Educational Planning Council (EPC).
	4. Identifies community influentials.
Board of Education	5. Selects individuals to serve on District Planning Council (DPC).
District Planning Council	6. Analyzes local educational data and provides input about perceptions of community on local education issues.
Assistant Superintendent for Research and Planning	7. Prepares report of DPC meeting for screening by EPC.
School Business Administrator	8. Forecasts district's resident population.
	9. Determines educational level, family income, and occupational needs of community.
	10. Summarizes community and school district demographic data (steps 8 and 9) for screening by EPC.
	11. Forecasts school district enrollment.
	12. Prepares report for future pupil space requirements for screening by EPC.
	13. Forecasts revenue from local sales tax, state aid, federal aid, and local property tax.

Responsibility	Action
	14. Prepares five-year revenue forecast for screening by EPC.
	15. Computes schedule of payments for capital outlay and debt service expenditures for screening by EPC.
Assistant Superintendent for Research and Planning	16. Administers Professional Staff Opinion and Pupil Opinion Questionnaires.
Student Government Advisor	17. Prepares annual student government report and forwards it to Assistant Superintendent for Research and Planning.
Committee and Council Chairmen	18. Prepare annual reports of committee and council meetings and forward to Assistant Superintendent for Research and Planning.
Assistant Superintendent for Research and Planning	19. Summarizes staff and student perceptions of local educational needs for screening by EPC.
	20. Plans and executes district's standardized testing program for grades K-12.
	21. Summarizes results of district's standardized testing program for screening by EPC.
Educational Planning Council	22. Screens revenue, demographic, and testing data.
	23. Screens opinions of community, professional staff, and students.
	24. Requests additional data as required.
	25. Requests desired changes in mode of data summarization.
	26. Reviews data for purpose of updating long-range plans and objectives and for establishing budget year guidelines.

Responsibility	Action
	27. Recommends to Board of Education changes in long-range plans and objectives and guidelines for budget year planning.
Board of Education	28. Determines long-range plans and objectives and sets guidelines for budget year planning.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 1
		Cancels None	

SUBJECT: Identifying Community Influentials

Responsibility	Action
Assistant Superintendent for Research and Planning	1. Reviews local newspapers continuously to identify persons knowledgeable about local affairs.
	2. Selects, during each odd-numbered year, four to six persons knowledgeable about local affairs to serve as nominating panel.
	3. Determines which civic, business, social, and academic organizations exert influence on local affairs, e.g., Kiwanis, Neighborhood Association, political and/or ethnic clubs, university affiliated organizations, Chamber of Commerce. (List of 6-8 organizations is recommended.)
Nominating Panel	4. Nominates 10 to 12 persons from each selected (6-8) organization to serve as candidates for Organization Nominating Panels.
Assistant Superintendent for Research and Planning	5. Selects organization nominating panels of four to six persons from each organization's list.
Organization Nominating Panels	6. Nominate in rank order the ten most influential members of organization represented.
Assistant Superintendent for Research and Planning	7. Prepares a rank-order list of ten influentials for each organization based on frequency of nomination (e.g., one point for being ranked first, two points for second, and on to ten points for being nominated tenth. Rank on master list from least to most points for each organization.).
	8. Places rank-order list of community influentials by organization in community data file.
	9. Selects and continuously studies two to four current community or school issues.

Responsibility	Action
	10. Clips news items about issues from newspapers.
	11. Attends public meetings about each issue.
	12. Notes from newspaper clippings and meetings names of persons prominently involved and their positions on each issue.
	13. Records position which emerges from resolution of issue.
	14. Compares this resolving position with positions of persons prominently involved.
	15. Notes which persons took position that was ultimately accepted.
	16. Selects from this issue-generated list a number of persons (10-20) to be included in community data file as being community influentials.
Board of Education	17. Reviews master[1] list of community influentials every two years when one-third of District Planning Council[2] membership is replaced.
	18. Reviews master list of community influentials as necessary to fill unexpected vacancies on District Planning Council.
	19. Uses master list of community influentials to obtain members of ad hoc citizen committees to study special school district problems.
	20. Uses master list of community influentials to conduct special, interim surveys of opinion on special educational issues.

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[1] Includes individuals selected by organization and by identification with local issues.

[2] See Functions List Number 2.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 2
		Cancels None	

SUBJECT: Selecting Individuals to Serve on District Planning Council (DPC)[1]

Responsibility	Action
Chief School Officer	1. Recommends to Board of Education five names from each organization's rank-order list of influentials contained in community data files (see Procedure No. 1).
Board of Education	2. Selects two members from each organization (included on list of influentials) to serve on District Planning Council (DPC).
Chief School Officer	3. Invites individuals selected to serve on DPC.
	4. Nominates ten other community influentials from issue-generated list (considering current school issues) for service on DPC (see Procedure No. 1).
Board of Education	5. Selects five citizens from chief school officer's issue-generated list of ten nominees to serve on DPC.
Chief School Officer	6. Invites individuals selected to serve on DPC.
Local School PTA President	7. Conducts election which identifies three members of each school's PTA for service on DPC.
Chief School Officer	8. Places winners of PTA election in each school on list of members of DPC.
	9. Prepares extensive list of other community residents who through attendance at public meetings or through private communication have expressed interest in school affairs.
Board of Education	10. Selects ten district residents from this list to serve on DPC.

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[1] See Functions List Number 2

Responsibility	Action
Chief School Officer	11. Invites those selected to serve on DPC.
Board of Education	12. Elects four of its own members to serve on DPC.
President of Local Teachers' Organization	13. Nominates at least one teacher representative per school building to serve on DPC.
Board of Education	14. Appoints representatives of local teachers' organization to DPC (including minimum of one teacher representative per district school).
	15. Appoints five members of district's administrative and supervisory staff to DPC.
Chief School Officer	16. Presents list of names of seven senior high school students to Board of Education.
Board of Education	17. Selects, after interviewing nominees, three senior high school students from above list to serve on DPC.
Chief School Officer	18. Invites students selected to serve on DPC.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 3
		Cancels None	

SUBJECT: Selecting a Random Sample of Household Units for Administration of Community Opinion Questionnaire (COQ)

Responsibility	Action
Clerk-Typist	1. Collects master list of all household units in district. The master list should include both households with children in school and households without children in school.
	2. Numbers each household unit on master list from 1 to end using the same number of digits in the number of each household (e.g., if there are 8700 household units in the district, numbers should start at 0001 and end at 8700).
Assistant Superintendent for Research and Planning	3. Recommends to Educational Planning Council levels of sampling error and probability error sufficient for administration of the Community Opinion Questionnaire (COQ).
Educational Planning Council	4. Reviews recommended sampling and probability accuracy.
	5. Decides the acceptable levels of sampling error and probability error for the COQ.
Assistant Superintendent for Research and Planning	6. Determines sample size. (One possible means of determining sample size is by using this formula.) $\frac{M - u}{\sigma m} = P$ (See Job Outline Number 1 or use table of sample sizes presented in Appendix B.)
	*7. Divides sample size into total population (household units) to be sampled and rounds off to the nearest whole number.

Responsibility	Action
	*8. Selects a number from a table of random numbers.[1] Digits in number from random table should equal number of digits used to number households on district's master list of households (e.g., if there are 8700 households on master list, the digits in the number from the random list have to have 4 places - 0010, 0145, 3872, etc.).
	*9. Matches number from random table with household unit bearing same number to obtain first subject (household) in random sample to be used in COQ.
	*10. Adds number obtained in Step 7 to number of first household selected in Step 9 to obtain number of second household to be selected for sample.
	*11. Repeats process in Step 10 until entire random sample is selected (e.g., adds number obtained in Step 7 to number of second household to obtain number of third household, etc., until the predetermined sample has been selected).

* ONE ALTERNATIVE TO STEPS 7, 8, 9, 10, 11.

Assistant Superintendent for Research and Planning	a. Selects from a table of random numbers[1] a list of random numbers equal to the desired sample size. Digits in number from random table should equal number of digits used to number households on district's master list.
	b. Matches each of the numbers from the list of selected random numbers with household unit bearing same number. If a random number does not have a household equivalent, select another number from the table of random numbers.

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[1] Directions on the use of a table of random numbers can be found in Hays, William L., Statistics for Psychologists. New York: Holt, Rinehart and Winston, 1963, pp. 65-67. For a table of random numbers see: The RAND Corporation, A Million Random Digits with 100,000 Normal Deviates. New York: Free Press, 1955.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 4
		Cancels None	

SUBJECT: Administering Community Opinion Questionnaire (COQ)

Responsibility	Action
Members of District Staff/District Planning Council	1. Forward to Assistant Superintendent for Research and Planning suggestions for the inclusion of items on biennial Community Opinion Questionnaire (COQ).
Assistant Superintendent for Research and Planning	2. Constructs tentative COQ before March 1 of each even-numbered year.[1] (Illustrative questions for a COQ can be found in Appendix B.)
	3. Distributes tentative COQ to staff and District Planning Council for review and comment.
Members of District Staff/District Planning Council	4. Send recommendations for altering COQ to Assistant Superintendent for Research and Planning prior to April 1 of each even-numbered year.
Assistant Superintendent for Research and Planning	5. Revises COQ to reflect views of staff before May 1 of each even-numbered year.
	6. Makes estimate of COQ validity before June 1 of each even-numbered year.[2]
	7. Makes estimate of COQ reliability before June 1 of each even-numbered year.[3]
	8. Revises COQ before June 15 of each even-numbered year to obtain desired levels of validity and reliability.

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[1] See Backstrom, C. H. and Hursh, G. D., Survey Research. Minneapolis: Northwestern University Press, 1963. Chapter III.

[2] See Kerlinger, F. N., Foundations of Behavioral Research. New York: Holt, Rinehart and Winston, 1964, Chapter 25, and Nunnally, J. C. Psychometric Theory. New York: McGraw-Hill, 1967, Chapter three.

[3] See Kerlinger, Chapter 24 and Nunnally, Chapter seven.

Responsibility	Action
	9. Prepares tables for summarization of data collected by COQ before July 1 of each even-numbered year.[4]
Assistant Superintendent for Personnel Services	10. Retains ten teachers by April 1 of each even-numbered year for subsequent employment in July to serve as survey team and to administer COQ. (If desired, college students, high school students, or regular school census takers could make up survey team.)
Survey Team	11. Reports to Assistant Superintendent for Research and Planning on the Monday following July 4 each even-numbered year.
Assistant Superintendent for Research and Planning	12. Determines number of households to be sampled. (See Job Outline Number 1.)
	13. Selects, randomly, the specific households which will be surveyed. (See Procedure Number 3.)
	14. Groups households selected to be surveyed by geographic location in district.
	15. Assigns each member of survey team a schedule of interviews (e.g., about five per day).
	16. Trains survey team in techniques of survey research.[5]
	17. Informs local media of pending survey.
Survey Team	18. Conducts survey in accordance with prescribed instructions (to be completed no later than end of third week of July each even-numbered year).

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[4] See Backstrom and Hursh, Chapter VI and Weiss, R. S., Statistics in Social Research. New York: John Wiley and Sons, 1968, Chapters 4 and 5. A sample table can be found in Appendix A.

[5] See Backstrom and Hursh, pp. 49-64 and Chapter V.

Responsibility	Action
Clerk-Typist	19. Tabulates COQ responses and transfers to prepared tables. (See Appendix A.)
	20. Files COQ in community data file for ready reference.
Assistant Superintendent for Research and Planning	21. Reviews and supervises final preparation of tables for presentation at District Planning Council meeting in August.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 5
		Cancels None	

SUBJECT: Sampling Opinion from National Sources

Responsibility	Action
Assistant Superintendent for Research and Planning	1. Surveys staff to determine which journals and which professional organizations regularly disseminate information of relevance to local school district operations. (See Appendix C for a possible listing of such sources and for sample survey form.)
Educational Planning Council[1]	2. Reviews staff suggestions and decides which will serve as regular inputs into the school district data bank.
Assistant Superintendent for Research and Planning	3. Subscribes to publications as per instructions of Educational Planning Council and upon approval of chief school officer and Board of Education.
	4. Secures written permission from publishers of publications selected to copy tables of contents and to copy articles.
Educational Planning Council	5. Indicates which regional organizations regularly sponsor events of interest to local school district personnel, e.g., local universities, colleges, Title III Centers, and local chapters of national or state professional organizations.
Clerk-Typist	6. Subscribes to schedule of events of selected regional organizations.
	7. Obtains monthly broadcast schedules of local radio and television stations.
Librarian	8. Canvasses professional staff to determine which books of a professional nature are most in demand.

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[1] See Functions List Number 6.

Responsibility	Action
Educational Planning Council	9. Reviews list of desired books.
	10. Determines which books the librarian should purchase, taking into account available resources and school district information needs.
Librarian	11. Orders professional books selected by Educational Planning Council.
	12. Notifies, whenever possible, the staff member requesting new book upon its arrival at the library.
Clerk-Typist	13. Obtains list of all new professional book acquisitions monthly from librarian.
	14. Makes multiple copies of each journal's table of contents page upon its arrival.
	15. Compiles master monthly schedule of events of local regional organizations and local radio and television stations.
	16. Assembles multiple copies of Monthly Sources of National Opinion (MSNO), including journal tables of contents, copy of master monthly schedule, and recent professional book acquisitions.
	17. Distributes MSNO to Board of Education members, administrators, and program and program element managers each month. (Referred to hereafter as recipients.)
Recipients	18. Review MSNO each month.
	19. Circulate MSNO to colleagues not on original distribution list.
	20. Submit to designated clerk request for copies of articles of interest. (See Appendix C for Sample Order Form.)
Clerk-Typist	21. Copies articles upon request and distributes them to requestors.

Responsibility	Action
Recipients	22. Request loan of professional books of interest from librarian.
Librarian	23. Distributes professional books upon request.
Recipients	24. Note regional events of pertinence to school district problems and attends them whenever possible to gather data from these sources for use in school district decision making.
	25. Note locally broadcast radio and television shows which seem pertinent to school district problems and view them whenever possible to gather data from these sources for use in school district decision making.
	26. Indicate upon yearly submission of program memoranda and program element summaries[2] the contribution national information sources make toward understanding and solving local educational problems.
Chief School Officer	27. Summarizes, in semi-annual reports to District Planning Council, national opinions on topics of interest to the school district as a whole.
	28. Reports to the Board of Education any information from national sources relevant to problems the Board is considering as it becomes available to him.

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[2] See Procedure No. 25, "Preparing a Curricular-Fiscal Plan for Each Program."

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 6
		Cancels None	

SUBJECT: Forecasting School District Resident Population[1]

Responsibility	Action
Assistant Superintendent for Research and Planning	1. Contacts regional planning offices, (e.g., Erie and Niagara Counties Regional Planning Board), to determine availability of local population forecasts or studies.
	2. Obtains copies of Special Census Reports for the county from the United States Department of Commerce.
	3. Analyzes county's population totals and trends for the past five-year period from the New York State Statistical Yearbook. (See Form 1, Appendix D)
	4. Analyzes school district's resident population totals and trends for the past five years from the local school census to determine the relationship of school district population to county population. (See Form 1, Appendix D)
	5. Determines from school census whether school district resident population is increasing, remaining constant, or decreasing.
	6. Contacts city, town, and village clerks in the school district to determine new building permits issued.
	7. Estimates number of additional residents moving into school district as a result of new housing.
Clerk-Typist	8. Lists school district resident population for each of past ten years on Form 2. (Appendix D)

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[1] Information about how to acquire the references cited in this Procedure can be found in the Appendix.

Responsibility	Action
	9. Computes the yearly change in school district resident population for each of past ten years on Form 2. (Appendix D)
Assistant Superintendent for Research and Planning	10. Estimates from contacts and analyses (Steps 1-9) whether school district resident population will increase, remain constant, or decrease over the next five-year period. If the district resident population is: 1) increasing - selects Model I, below 2) remaining constant - selects Model II, below 3) decreasing - selects Model III, below 10.1 Model I. Select three years (not necessarily consecutive) from the past ten-year period in which the district resident population showed the greatest increases (as determined in Step 9) and record on Form 2. (Sum the three-year changes and divide by 3.) 10.2 Model II. Sum the yearly changes in district resident population (obtained in Step 9) and divide by 10 on Form 2 to obtain the standard change in population. 10.3 Model III. Select three years (not necessarily consecutive) from the past ten-year period in which the district resident population showed the greatest decreases or the least increases (as determined in Step 9) to obtain the minimum yearly change. (Sum the three-year changes and divide by 3 on Form 2.)
Clerk-Typist	11. Projects school district resident population for the next five-year period by adding the average yearly change in the district resident population (obtained from Model I, II or III, above) to the total resident population. (See Form 2)

Responsibility	Action
Assistant Superintendent for Research and Planning	12. Estimates population migration factor by contacting regional planning boards (e.g., Erie and Niagara Counties Regional Planning Boards), Business Factbook, New York State Department of Commerce and/or local demographers.
	13. Records changes in population forecasts as a result of migration on Form 3. (Appendix D)
	14. Estimates the birth and death rates of the population by contacting regional planning commissions (e.g., Erie and Niagara Counties Regional Planning Board) and/or County and City Data Book published by U. S. Department of Commerce, Bureau of Census.
	15. Records changes in population forecasts as a result of changing birth and death rates (if any). Form 3.
	16. Computes adjusted school district resident population forecast on Form 3. (Combines the results of Steps 11, 13, and 15.)
	17. Obtains the percentage of males/females in the population by referring to the New York State Statistical Yearbook; U. S. Census of Population, Volume I Characteristics of the Population Part 34, New York; local school district census; and/or local population studies.
	18. Applies the male/female percentage to school district resident population forecast. (See Form 4, Appendix D)
	19. Determines the age characteristics of the county or census tract residents from any or all of the following: (1) local school census; (2) New York State Statistical Yearbook, New York State Division of the Budget; (3) U. S. Census of Population, Volume I Characteristics of the Population Part 34, New York.

Responsibility	Action
	20. Computes the age characteristics of the school district resident forecast by multiplying the age-group percentage of general population times the school district resident population forecast. (See Form 4). Use the following age groups: a) birth-19 years of age b) 20-40 years of age c) 41-60 years of age d) over 60 years of age.
	21. Determines racial characteristics of the school district resident population by analyzing local school census data and/or U. S. Census of Population Volume I, Characteristics of Population, Part 34, New York. (See Form 4, Appendix DO
Clerk-Typist	22. Summarizes school district resident population sex, age, and racial characteristics on Form 4.
	23. Places Form 4 in data file for future reference in planning and programming activities of the school district, (e.g., this information may be relevant in developing program memoranda for adult programs.).

Western N. Y. PPBS Model	**PROCEDURE**	Date 6-30-72	Procedure No. 7
		Cancels None	

SUBJECT: **Determining Educational Level, Family Income, and Occupational Needs of the School District Community**[1]

Responsibility	Action
Director of Pupil Personnel Services	1. Obtains information concerning occupational needs of local and regional area (e.g., western New York) from following sources: a) *Manpower Directions* New York State Department of Labor b) *Statistical Reporter* New York State Division of Budget c) *Occupation Outlook Handbook* d) *New York State Business Fact Book* Department of Commerce e) *Tract Facts for Area* (e.g., *Tract Facts for Buffalo and Erie County*) U. S. Department of Commerce, Bureau of Census f) *Statistical Abstract of the United States* U. S. Department of Commerce, Bureau of Census g) Employment Agencies (e.g., New York State Employment Agencies located in regional area) h) Regional Planning Commissions (e.g., Erie and Niagara Counties Regional Planning Board) i) Local Chambers of Commerce j) Regional Educational Centers (e.g., Western New York School Development Council).

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[1] Information about how to acquire the references cited in this Procedure can be found in Appendix E.

Responsibility	Action
	2. Directs information (obtained in Step 1) to appropriate district personnel (e.g., Building Principal, Assistant Superintendent for Research and Planning, District Planning Council) for school planning activities.
Assistant Superintendent for Research and Planning	3. Analyzes school district resident median income data from Inventory of Public Opinion (district-administered opinionnaire - see Procedure No. 4 and Form 5, Appendix D).
	4. Compares resident median income data obtained from Inventory of Public Opinion opinionnaire with county income characteristics as found in the New York State Statistical Yearbook and/or Business Fact Book: New York State.
	5. Estimates school district resident median income for next five years by analyzing income growth rate for past ten years and projecting rate of growth for next five years. (Form 5)
	6. Obtains educational level of school district residents from personal data information obtained on Inventory of Public Opinion.
	7. Compares school district resident educational level with county resident educational level as found in County and City Data Book.
	8. Forecasts educational level of school district residents for five years by analyzing past ten-year educational level changes in district. (See Form 6, Appendix D)
Clerk	9. Files Forms 5 and 6 in district data file, to be used in planning and programming of school district activities, specifically, in program memoranda and program element summaries.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 8
		Cancels None	

SUBJECT: Forecasting School District Enrollment[1, 2]

Responsibility	Action
Attendance Clerk	1. Obtains from school census the number of preschool children by age group for each of the five (5) previous years. (See Appendix D, Form 7, Part A).
	2. Obtains the enrollments by grade for each of the five (5) previous years. (See Appendix D, Form 7, Part B).
	3. Calculates the ratio between subsequent age-group populations and the preceding year age-group populations, for each of the five (5) previous years. (See Appendix D, Form 7, Part C).
	4. Calculates the ratio between subsequent kindergarten enrollments and the preceding Pre-K four-to-five (4-5) year old populations for each of the five (5) previous years. (See Appendix D, Form 7, Part D).
	5. Calculates the ratio between subsequent grade enrollments and the preceding year grade enrollments, for each of the previous five (5) years, for grades K-12. (See Appendix D, Form 7, Part D).
	6. Computes for each preschool age group and for each grade level, an average retention ratio (from steps 1-5). (See Form 7, Parts C and D).
Assistant Superintendent for Research and Planning	7. Updates annual Residential Construction Survey.
	8. Obtains from town governments the number of building permits issued in the school district during the current year.

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[1] This procedure based upon the following paper: Short, Verl M., "Forecasting Pupil Population." DeKalb, Illinois: Educational Administration Center, Northern Illinois University, 1967.

[2] Information about how to acquire the references cited in this Procedure can be found in Appendix E.

Responsibility Action

9. Consults town planning boards, assessors and building inspectors to obtain information relating to current and anticipated trends in residential construction in the school district.

10. Consults with local building associations and land developers to determine plans for future new housing in the district.

11. Contacts local industry, Chambers of Commerce and town governments to determine long-range plans which may change housing patterns within the district.

School Attendance Officer

12. Analyzes the trend in local birth rates as reflected in the under-one-year age-group population figures from the school census.

13. Determines the estimated birth rate for the next five years by consulting the County Health Department, Bureau of Bio-statistics; the County and City Data Book and/or the New York State Statistical Yearbook.

14. Determines from school census, average number of children per dwelling unit for dwelling units occupied by families with children and dwelling units occupied by families without children.

15. Contacts local nonpublic school agencies to determine their enrollment trends, changes in nonpublic enrollment policies, reorganization plans, and new nonpublic enrollments.

16. Adjusts the average retention ratio, computed in Step 6, for each age group and grade, to reflect expected impact of the following data:

    a. Five-year trends in retention ratios for each age group and grade (see Step 6).

    b. Residential construction survey (see Step 7).

    c. Building permits (see Step 8).

    d. Birthrate trends (see Steps 12 and 13).

Responsibility	Action
	e. Future new housing trends (see Step 10).
	f. Trends in number of children per dwelling unit (see Step 14).
	g. Long-range plans affecting housing patterns (see Step 11).
	h. Trends in public/nonpublic enrollment ratios (see Step 15).
	17. Enters adjusted average retention ratios for each age group and grade on Form 8 (Appendix D) as "Predictive Ratio Per Cent."
Attendance Clerk	18. Multiplies the Predictive Ratio Per Cent for subsequent age groups by the age-group population figure for the preceding year to obtain preschool population forecasts for ages under one to pre-K 4/5. (see Appendix D, Form 8, Part A).
	19. Multiplies the Predictive Ratio Per Cent for kindergarten by the preceding year's pre-K 4/5 age group to obtain kindergarten enrollment forecasts for grades 1-12.
	20. Multiplies the Predictive Ratio Per Cent for subsequent grades by the preceding grade's enrollment for preceding year to obtain enrollment forecasts for grades 1-12.
	21. Repeats Steps 18-20 for five years beyond current year.
School Attendance Officer	22. Obtains information from school census concerning new housing units within school district.
	23. Determines, from school census, average number of children living in single and in multiple family units.
	24. Estimates additional enrollment because of new housing units within the district.

Responsibility	Action
	25. Adjusts, if necessary, enrollment forecast changes because of new housing units. (see Form 8, Appendix D)
	26. Contacts local building association to determine number of single family dwelling conversions to multiple family dwellings.
	27. Analyzes school census data for past five years to determine the rate of conversion from single family to multiple family units.
	28. Adjusts, if necessary, pupil enrollment forecast changes because of changes in housing conversions. (see Form 8, Appendix D)
	29. Determines male-female characteristics of enrollments for past five years. (see Form 9, Appendix D)
	30. Calculates male-female characteristics of enrollment forecast. (see Form 9, Appendix D)
	31. Converts grade level enrollment forecasts to age forecasts. (see Form 10, Appendix D)
	32. Determines, from school census, ethnic characteristics of school enrollment for past five years to determine trends.
	33. Correlates ethnic characteristics of school enrollment for past five years with projected ethnic characteristics of school district resident population. (see Form 11, Appendix D)
	34. Forecasts the ethnic make-up of school district enrollment for the next five years. (see Form 11, Appendix D)
	35. Summarizes pupil enrollment forecast and population characteristics on Form 11.
	36. Files pupil population forecast Form 11 in data file, for future reference in planning and programming activities of the school district, specifically for making decisions concerning relevancy of programs, projecting program costs.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 9
		Cancels None	

SUBJECT: Forecasting Long-Range (Five Year) Federal Aid Revenue[1]

Responsibility	Action
Board of Education	1. Subscribes to the reports of legislative committees and of organizations having educational interests including the following: - National School Public Relations Association - National Education Association - American Association of School Administrators - National Association of Secondary School Principals - Association of Supervision and Curriculum Development - New York State Educational Conference Board
Coordinator of Federally Funded Programs	2. Contacts appropriate U. S. Senators and Representatives to check legislative status of educational programs and proposals.
	3. Reviews and estimates possible revenue from district's proposals for federal aid.
Clerk-Typist	4. Plots federal aid per WADA[2] for school district for each of the immediate past ten years on a graph. (see Form 2, Appendix D)
Coordinator of Federally Funded Programs	5. Estimates from reading and other sources if federal aid will be increasing, remaining constant, or decreasing.
	6. Selects appropriate following model for projecting federal aid revenue:

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[1] Information about how to acquire references cited in this Procedure can be found in the Appendix E.

[2] Weighted Average Daily Attendance

Responsibility

Action

6.1 Model I. If the federal aid likely will be increasing, projects the federal aid revenue on the graph (Step 4) by averaging the percentage increase in federal aid for the highest three years (during the past ten-year period) to obtain the maximum projection.

6.2 Model II. If the federal aid likely will be remaining constant, projects the federal aid revenue on the graph by averaging the percentage increase for the past ten-year period to determine a standard projection.

6.3 Model III. If the federal aid likely will be decreasing, projects the federal aid revenue on the graph by averaging the lowest three-year period (from the past ten years) to obtain the minimum projection.

7. Adjusts federal aid revenue projections in accordance with any information received from other sources.

8. Projects federal aid revenue for next five years by adding the average yearly change in the federal aid (obtained in Model I, II, or III above) to current and future year federal aid. (see Form 12, Appendix D)

9. Files Form 12 in data file for future use in estimating the total revenue for the school district.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 10
		Cancels None	

SUBJECT: Forecasting Long-Range (Five Year) State Aid Revenue[1]

Responsibility	Action
School Business Administrator	1. Maintains a data file of information concerning changes in the state aid formula using the following sources: a) New York State Teachers Association b) New York State School Boards Association c) New York State Educational Conference Board d) State Education Department - School Financial Aid Bulletin - School Business Management News e) School Development Council publications f) New York State Legislative Bulletins g) New York State Taxpayer
	2. Contacts state assemblymen and senators periodically to determine plans to change state aid formulae.
Clerk-Typist	3. Computes yearly changes in district state aid per weighted average daily attendance (WADA) for past ten years on Form 2. (Appendix D)
School Business Administrator	4. Estimates from sources in Step 1 whether state aid will be increasing, remaining constant, or decreasing during the next five years. If the state aid likely will be increasing, select Model I, below; remaining constant, select Model II, below; decreasing, select Model III, below.

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[1] Information about references cited in this Procedure can be found in the Appendix E.

Responsibility	Action
	4.1 Model I. Selects three years (not necessarily consecutive) from the past ten years in which the state aid increased the greatest and record on Form 2.
	4.2 Model II. Totals the yearly changes in state aid (as determined in Step 3) for the past ten years and divide by 10 to determine the average change per year in state aid and record on Form 2.
	4.3 Model III. Selects three years (not necessarily consecutive) from the past ten years in which the state aid decreased or showed the least increase and record on Form 2.
Clerk-Typist	5. Projects state aid per WADA for next five years by adding the average yearly change in the state aid per WADA (obtained from Model I, II, or III above) to current and future state aid per WADA. (see Form 12, Appendix D)
	6. Plots state aid per WADA for past ten years (Step 3) and projection (Step 5) on graph paper.
	7. Obtains pupil population forecast by grade level from data file.
	8. Computes yearly WADA for next five years based upon pupil population forecast.
	9. Multiplies state aid per WADA forecast by the yearly WADA for each of next five years to obtain the state aid revenue forecast on Form 12.
	10. Files Form 12 in data file for future use in estimating the total revenue for the school district.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 11
		Cancels None	

SUBJECT: Forecasting Sales Tax Revenue[1]

Responsibility	Action
School Attendance Officer	1. Determines the estimated county average daily attendance for the next five years through information obtained from the local School Development Council, demographic consultants, and special census reports.
Clerk-Typist	2. Obtains estimated average daily attendance figures from pupil population forecast for school district for next five years. (see Form 13, Appendix D)
	3. Computes district proportion of sales tax by dividing county average daily attendance by district's average daily attendance.
School Business Administrator	4. Projects increases in the county sales tax during the next five years. (May use, for example, 3% annual growth rate per capita.)
	5. Checks sales tax estimated growth rate with county sales tax administrator to determine if growth rate is reasonable.
	6. Contacts New York State Educational Conference Board, State Department of Education and the State Department of Audit and Control to determine if there are any planned or actual statutory changes affecting County Sales Tax (place district on their Newsletter mailing lists).
	7. Adjusts sales tax projections as necessary.
Clerk-Typist	8. Computes school district revenue from sales tax by multiplying the projected county sales tax by projected share of sales tax due to district.

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[1] Information about references cited in this Procedure can be found in Appendix E.

Responsibility	Action
	9. Files Form 13 in data file for future use in estimating the total revenue for the school district.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 12
		Cancels None	

SUBJECT: Forecasting Budget Year State Aid[1]

Responsibility	Action
Clerk-Typist	1. Maintains a data file of information concerning changes in the state aid formula using following sources (see also Appendix F for an annotated list of sources of information about potential revenue changes). a) New York State Teachers Association b) New York State School Boards Association c) New York State Educational Conference Board d) State Education Department - School Financial Aid Bulletin - School Business Management News e) School Development Council publications f) New York State Legislative Bulletins g) New York State Taxpayer
School Business Administrator	2. Contacts state assemblymen and senators representing school district to determine changes in state aid formula.
	3. Obtains copy of district's updated Curricular-Fiscal Plan.
	4. Estimates weighted average daily attendance for budget using New York State Education Department Form SA-129 (WADA computation worksheet).

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[1] The forms used in this Procedure are standard New York State Forms and may be obtained from the New York State Education Department, Division of Educational Finance, Albany, New York.

Responsibility	Action
	5. Estimates transportation expenses for state aid using New York State Education Department Form SA-120 (Transportation Expenses Worksheet).
	6. Estimates building expenses for state aid using New York State Education Department Form SA-121 (Building Expenses Worksheet).
	7. Estimates operating expenses for state aid using New York State Education Department Form SA-122 (Operating Expenses Worksheet).
	8. Estimates other components of state aid if applicable. For example: Handicapped Expenses - SA-127 Debt Service Adjustment Worksheet - SA-133 Growth Aid Worksheet - SA-126 High Tax Rate Aid Worksheet - SA-118
	9. Estimates budget year net state aid by completing New York State Education Department Form SA-124 (Summary of Total Aid).
Clerk-Typist	10. Files copy of Form SA-124 for use in preparation of program budget and in computing school district revenues for the budget year.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 13
		Cancels None	

SUBJECT: Forecasting Full Property Valuation[1]

Responsibility	Action
School Business Administrator	1. Contacts, if available, local builders association (e.g., Niagara Frontier Builders Association, Inc.) or major housing contractors in the district, to determine whether new housing construction in the school district will be increasing, remaining constant or decreasing during the next five years. 2. Contacts local and regional planning boards (e.g., Erie County Planning Department, Urban Development Corporation, Erie and Niagara Counties Regional Planning Board), to determine plans which may change school district housing patterns or population characteristics during the next five years. 3. Contacts local major industries and the Chamber of Commerce to determine industrial and commercial plans which may change housing patterns or population characteristics of the school district during the next five years. 4. Contacts local tax assessor(s) to determine whether the full valuation of real property in the district is increasing, remaining constant or decreasing. 5. Contacts city, town, and village clerks in school district to determine new building permits issued. 6. Contacts local and state legislators representing the school district's community to determine pending legislation or activities that would change the school district's real property valuation.

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[1] Full Property Valuation - school district's total real property "full" or "true" valuation obtained from New York State Finance Department or school district records.

Responsibility	Action
Clerk-Typist	7. Lists real property full valuation of a tax district for each of past ten years on Form 2. (Appendix D)
	8. Computes the yearly change in real property full valuation for each of past ten years on Form 2.
School Business Administrator	9. Estimates from contacts (Steps 1-6) whether the yearly change in real property full valuation will increase, remain constant, or decrease over the next five-year period.
	10. Selects appropriate model below for projecting real property full valuation:
	10.1 Model I. If the yearly change in real property full valuation will be increasing, selects three years (from the past ten-year period) in which the real property full valuation showed the greatest increase and records on Form 2. The three years may or may not be consecutive years.
	10.2 Model II. If the yearly change in real property full valuation will remain constant, projects the real property full valuation for the next five years by totaling the yearly changes in real property full valuation (as determined in Step 8) for the past ten years and divides the total by 10 to determine the average change per year. (Form 2)
	10.3 Model III. If the yearly change in real property full valuation will be decreasing, selects three years (from the past ten-year period) in which the real property full valuation showed the greatest decrease or the least increase and records on Form 2. The three years selected may or may not be consecutive years.

Responsibility	Action
Clerk-Typist	11. Projects real property full valuation for next five-year period by adding the average yearly change (obtained from Model I, II, or III, above) to current and future five-years' real property full valuation to obtain the district's real property full valuation forecast. (see Form 14, Appendix D) 12. Plots real property full valuation for each of the past ten years and for the next five years on a graph. 13. Repeats Steps 7-12 for each tax district within the school district. 14. Summarizes real property full valuation from each tax district on Form 15 (Appendix D) to obtain the school district's total real property full valuation. 15. Plots school district's total real property full valuation (from Form 15) on a graph. 16. Files Form 15 and graphs in data file for reference in estimating the five-year forecast of school revenue.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 14
		Cancels None	

SUBJECT: Estimating School District Revenue

Responsibility	Action
School Business Administrator	1. Determines from local newspapers, local and state legislators representing the school district, and tax assessors in the school district, legislation and other activities that might change the total tax levy on real property. 2. Contacts local and regional planning offices, county Board of Supervisors, Town and Village Clerks office, and County Budget Bureaus to determine whether the county and local levies on real property are to increase, remain constant, or decrease during the next five-year period. 3. Determines whether the school district's share of the real property levy has been increasing, remaining constant or decreasing. 4. Estimates the degree to which various demographic groupings of residents within the district are willing to support public education. 4.1 Analyzes the demographic data in the "Inventory of Personal Data" in relation to sample Community Opinion Questionnaire questions (Appendix B) administered every two years. (Reference: Procedure 4) 4.2 Correlates demographic data from the "Inventory of Personal Data" and/or economic/ethnic characteristics of the community (as determined by population characteristics forecast - see Procedure No. 6) with past three-year school budget voting patterns of residents.

Responsibility	Action
	5. Estimates the economic/ethnic/and living patterns of district residents for the next five-year period which might change the financial support for the schools. (e.g. - from the population forecast it may be found that many low income families are moving into the district who may not be willing to financially support tax increases.)
Clerk-Typist	6. Obtains the full valuation tax rate for the past ten years and places on Form 2. (Appendix D)
	7. Computes the yearly change in the full valuation tax rate for each of the past ten years.
School Business Administrator	8. Selects appropriate model below for projecting the school district's full valuation tax rate for the next five years. If (1) The majority of the school district residents are willing to support education (as determined in Step 4) and (2) The local governments are planning to decrease their share of the real property levy (as determined in Step 2) and (3) The school district's share of the total real property levy is increasing (as determined in Step 3) then select Model I below. If the above characteristics tend to be constant, select Model II below. If the above characteristics tend to be decreasing, select Model III below. 8.1 Model I. Select three years (not necessarily consecutive) from the past ten years in which the full valuation tax rate showed the greatest increases and record on Form 2. (Sum the three year increases and divide the total by three), to obtain the maximum yearly increase.

Responsibility	Action
	8.2 Model II. Sum the yearly change in full valuation tax rate (obtained in Step 6) and divide by 10 on Form 2 to obtain the standard yearly change.
	8.3 Model III. Select three years (not necessarily consecutive) from the past ten years in which the full valuation tax rate showed the greatest decrease or the least increase to obtain the minimum yearly increase. (Sum the three-year changes and divide by 3). (See Form 2, Appendix D)
	9. Projects full valuation tax rate for next five-year period by adding the yearly change in the full valuation tax rate obtained from Model I, II or III to the full valuation tax rate. (see Form 14, Appendix D)
Clerk-Typist	10. Plots the district full valuation tax rate per thousand for the past ten years (obtained in Step 6) and the next five years (obtained in Step 9) on a graph.
School Business Administrator	11. Contacts local tax assessors and New York State Bureau of Equalization and Assessment in the county office to determine any planned changes in the equalization rates affecting school district.
	12. Computes on Form 16 the estimated revenue to be derived from the real property tax for each year of the five-year period. (Multiply the projected full valuation by the projected full valuation tax rate per thousand by the equalized rate.)
Clerk-Typist	13. Files Form 16 in data file for future reference in determining five-year revenue forecast for district.
	14. Summarizes revenue forecasts from federal and state aid (Form 12), sales tax (Form 13), and real property tax (Form 16). (see Form 17, Appendix D)

Responsibility	Action
	15. Files Form 17 in data file for future reference in district planning, programming, and budgeting activities.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 15
		Cancels None	

SUBJECT: Determining School Building Needs

Responsibility	Action
School Business Administrator	1. Determines building capacity and square feet per pupil for each school building. (see Form 18, Appendix D)
	2. Computes total building capacity of the district and the total square feet per pupil within the district. (Form 18, Appendix D)
	3. Computes pupil space needs or surplus by comparing building capacity figures with current and projected school district enrollment. (see Form 18, Appendix D)
Board of Education	4. Determines what pupil/classroom ratio will be used when making projections of building needs or uses current year pupil/classroom ratio for projections.
	5. Determines minimum square feet per pupil that will be used as input when determining building needs.
	6. Estimates building facility needs for next five years based upon ratios selected in Step 4 and/or 5 above. (Form 18)
School Business Administrator	7. Files Form 18 in data file for use in planning for the building needs for the district.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 16
		Cancels None	

SUBJECT: Developing Five-Year Projection of Capital Outlay and Debt Service Expenditures

Responsibility	Action
Clerk-Typist	1. Computes the amount to be paid for principal and interest on current existing capital debt for each of the next five years on Form 19. (Appendix D)
Board of Education	2. Determines the amount of annual capital outlay necessary during the upcoming five-year period.
School Business Administrator	3. Consults State Education Department School Facilities and School Finance personnel, local school building architects, and local bankers to determine the debt service costs which may be incurred for future (next five years) capital outlay debts.
Clerk-Typist	4. Computes annual principal and interest payments for future capital outlay debt.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 17
		Cancels None	

SUBJECT: Planning and Executing Standardized Testing Program

Responsibility	Action
Director of Pupil Personnel Services	1. Reviews district planning documents and consults with Program Directors to determine district standardized testing needs.
	2. Recommends a standardized testing program to Educational Planning Council.
Educational Planning Council	3. Reviews recommended standardized testing program.
	4. Approves standardized testing program (with changes as noted if desired).
Director of Pupil Personnel Services	5. Prepares and disseminates copies of annual standardized testing program to district staff.[1]
Program Directors	6. Order sufficient copies of desired tests.
Director of Pupil Personnel Services	7. Combines requests from various Program Directors according to test title, grade, supplier, etc..
Clerk-Typist	8. Types purchase orders to various vendors specifying shipment to various Program Directors as requested.
School Business Administrator	9. Issues purchase orders.

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[1] At this stage in the planning process the method (forms or tables) which will be used to summarize testing results at each program level for decision-making purposes should also be determined. These forms and/or tables should also be disseminated at this time for review by district staff members.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 18
		Cancels None	

SUBJECT: Disseminating Standardized Testing Program Results

Responsibility	Action
Director of Pupil Personnel Services	1. Receives standardized test score results from correcting service agency.
	2. Forwards copy of individual pupil scores to appropriate school of attendance.
Secretary	3. Records individual test results on individual pupil's permanent record form.
Director of Pupil Personnel Services	4. Compiles test results by: 4.1 district level basis; 4.2 individual school level basis; 4.3 grade level basis; and 4.4 subject matter level basis (i.e., reading).
	5. Reports results of standardized tests as profiles (25, 50, 75th percentile) showing scores and distribution to appropriate school district members.
	6. Prepares report of standardized test results, by program level, showing profiles over five-year period.
Clerk-Typist	7. Types various reports (forms and/or tables) and prepares graphic illustrations (this may be by AV personnel).
Director of Pupil Personnel Services	8. Forwards reports of standardized test results, by program, to Program Directors.
	9. Analyzes trends in pupils' standardized test scores, by programs, as they may influence program needs and planning.

Responsibility	Action
	10. Forwards test reports and analysis to central data file.
Assistant Superintendent for Research and Planning	11. Disseminates information to Educational Planning Council and to other district staff members for their use in setting objectives, establishing priorities, developing plans of action, and in making implementation decisions.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 19
		Cancels None	

SUBJECT: Screening Kindergarten Pupils for Learning Disabilities

Responsibility	Action
Assistant Principal (Elementary Buildings)	1. Screens all kindergarten pupils for learning disabilities (e.g., perception, motor control).
	2. Compiles report categorizing disabilities by their nature and showing number of kindergarten pupils with various learning disabilities.
	3. Forwards kindergarten pupils learning disability report to building principal (program director).
Principal (Elementary Buildings)	4. Analyzes report of kindergarten pupils with learning disabilities for significant changes over previous five years in pupil numbers, nature of disability, etc. which may influence program needs and planning.
Clerk-Typist	5. Types report and prepares graphic illustration showing trends over past five-year period.
Principal	6. Forwards report and analysis to central data file.
Assistant Superintendent for Research and Planning	7. Disseminates information for use by Educational Planning Council and other district staff members in setting objectives, establishing priorities, in developing plans of action, and making implementation decisions.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 20
		Cancels None	

SUBJECT: Administering Pupil Opinion Questionnaire

Responsibility	Action
Director of Pupil Personnel Services	1. Compiles names of persons in appropriate pupil population (e.g., ninth through twelfth grade) comprising the stratified random sample to whom the inventory of pupil opinion will be given. (See Job Outline No. 2 for directions on sample determination.)
	2. Obtains sufficient copies of Pupil Opinion Questionnaire from Assistant Superintendent for Research and Planning.
	3. Forwards list of pupils comprising the sample and copies of questionnaire to their Program Directors.
Program Directors	4. Schedule time and place for questionnaire to be administered by guidance counselors.
Guidance Counselors	5. Administer questionnaire to pupil sample.
	6. Forward completed questionnaires to Director of Pupil Personnel Services.
Director of Pupil Personnel Services	7. Directs clerk-typist to tally the responses by item and in categories (grade and sex).
Clerk-Typist	8. Tallies the responses by item and compiles a summary of the responses to each item according to grade, sex, and total sample.
Director of Pupil Personnel Services	9. Analyzes pupil responses to questionnaire.[1]
	10. Forwards analysis to central data file.

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[1] The method of analysis followed here should parallel that used to develop Table 1, Appendix A.

Procedure No. 20
6-30-72
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Responsibility	Action
Assistant Superintendent for Research and Planning	11. Disseminates information for use by the Educational Planning Council and other district staff members in setting objectives, establishing priorities, developing plans, and making implementation decisions.

(See Appendix B for sample questions for a Pupil Opinion Questionnaire.)

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 21
		Cancels None	

SUBJECT: Administering Professional Staff Opinion Questionnaire

Responsibility	Action
Assistant Superintendent for Research and Planning	1. Compiles names of staff members comprising the random sample to whom the inventory of professional staff (including administrators and supervisors) opinion will be given. (See Job Outline No. 3 for directions on sample determination.)
	2. Obtains sufficient copies of Professional Staff Opinion Questionnaire.
Clerk-Typist	3. Provides for distribution of inventory of professional staff opinion to selected sample, including stamped envelope addressed to Assistant Superintendent for Research and Planning.
	4. Tallies returns by item and in categories (e.g., sex, years in system, position, etc.).
	5. Summarizes responses for each item and category.[1]
Assistant Superintendent for Research and Planning	6. Analyzes staff responses.
	7. Forwards analysis to central data file.
	8. Disseminates information for use by the Educational Planning Council and other district staff members in setting objectives, establishing priorities, developing plans of action, and making implementation decisions. (See Appendix B for sample questions for a Professional Staff Opinion Questionnaire.)

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[1] The method of analysis followed here should parallel that used to develop Table 1 of Appendix A.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 22
		Cancels None	

SUBJECT: Preparing Student Government Opinionnaire and Report of Student Concerns

Responsibility	Action
Student Government Officers and Faculty Advisor	1. Complete yearly an open-ended questionnaire intended to identify areas of concern or problems for students as they perceive these concerns. (See Appendix B for an illustrative Student Government Opinionnaire.)
	2. Review minutes of student government meetings for indicators of problem areas of concern to students.
	3. Prepare report which synthesizes the major concerns expressed in the minutes.
	4. Forward completed opinionnaire and report of concerns to Assistant Superintendent for Research and Planning.
Assistant Superintendent for Research and Planning	5. Categorizes areas of concern and problems as gleaned from the minutes of student government meetings and as reported in the opinionnaire.
	6. Draws comparisons between present replies and concerns previously reported.
	7. Prepares a brief written report of perceived student concerns, problems, and opinions for use in the planning phase of PPBS cycle.
	8. Forwards report to central data file.
	9. Disseminates information to Educational Planning Council and to other district staff members for their use in setting objectives, establishing priorities, developing plans of action, and in making implementation decisions.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 23
		Cancels None	

SUBJECT: Preparing Annual Committee and Council Reports

Responsibility	Action
Committee Chairman (of all committees)	1. Reviews minutes and reports of his committee activities and prepares an annual summary report of year's activities plus making recommendations for future activities or changes.
	2. Forwards a copy of all minutes of school and school-community committee meetings and reports to central data file.
	3. Forwards copy of summary report and recommendations to central data file.
Assistant Superintendent for Research and Planning	4. Reviews minutes and reports of curriculum and administrative council activities and draws together a summary report of recommendations from these documents.
	5. Forwards copy of summary report and recommendations to central data file.
	6. Prepares a distilled report of the a) committees' recommendations b) councils' recommendations showing changes in concerns or repetitions of items over a five-year period.
	7. Forwards copy of this distilled report (Step 6) to central data file.
	8. Disseminates information to Educational Planning Council and to other district staff members for their use in setting objectives, establishing priorities, developing plans of action and in making implementation decisions.

Western N. Y. PPBS Model	MASTER PROCEDURE	Date 6-30-72	Procedure: Programming
		Cancels None	

SUBJECT: Developing and Updating the School District Curricular-Fiscal Plan

Responsibility	Action
Educational Planning Council	1. Annually reviews and develops a program structure for the school district.
Program Element Actors[1]	2. Review prior and current year Program Element activities and accomplishments.
	3. Identify and update Program Element objectives in light of district objectives.
	4. Develop multi-year Program Element curricular-fiscal plans.
Program Element Coordinator	5. Prepares Program Element Summary (summary of the proposed curricular-fiscal plan for the Program Element to be used in developing Program Plans).
Program Committee[2]	6. Reviews prior and current year Program activities and accomplishments.
	7. Identifies and updates Program objectives in light of district objectives.
	8. Develops multi-year Program curricular-fiscal plan.
Program Director	9. Prepares a Program Memorandum (a summary of the proposed curricular-fiscal plan for the Program) to be used by the Educational Planning Council in developing a district-wide curricular-fiscal plan.
Educational Planning Council	10. Reviews prior and current year district activities and accomplishments.
	11. Develops multi-year curricular-fiscal plans for the district.

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[1] Program Element Coordinator and Teachers

[2] Program Element Coordinators and Program Director

Responsibility	Action
Chief School Officer	12. Prepares a summary of the curricular-fiscal plan for presentation to the Board of Education.
Board of Education	13. Conducts an administrative hearing concerning the district's curricular-fiscal plan.
	14. Suggests revisions in the curricular-fiscal plan for the district.
Program Committees	15. Revise Program curricular-fiscal plan in light of Board of Education's suggestions.
Board of Education	16. Reviews revised district curricular-fiscal plan.
	17. Authorizes the curricular-fiscal plan for the district.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 24
		Cancels None	

SUBJECT: Developing and Adopting a School District Program Structure

Responsibility	Action
Educational Planning Council (EPC)	1. Develops a list of specific criteria[1] for deciding upon a program structure.[2]
	2. Appoints an ad hoc Program Structure Committee[3] to review the district's instructional and non-instructional activities.
Program Structure Committee (PSC)	3. Reviews the existing organization of the district's instructional and non-instructional activities according to the criteria established.
	4. Develops a recommended program structure for the district and presents it to EPC.

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[1] The specific criteria used are determined by the school district's EPC and contain as many criteria as EPC deems necessary. As an illustrative list the following are included:

a. Relates resources (inputs) to the end products or services (outputs) desired and permits evaluation of the relationship.
b. Organizes activities in a manner which provides for establishing priorities and facilitates participative decision making.
c. Facilitates the generation of alternatives for achieving desired outputs.
d. Permits comparison of alternative methods for achieving desired outputs.
e. Facilitates communication within and among the various activities of the organization.
f. Groups activities by their common objectives.
g. Accommodates different management styles (e.g., centralized vs. decentralized).

[2] Program Structure - a hierarchal arrangement of activities that represent the relationship of activities to goals and objectives. The program structure contains categories of activities with common outputs and objectives and may cut across existing departments and agencies.

[3] Program Structure Committee - representation from major school activities including instructional and non-instructional staffs, administration, board of education and possibly lay citizen representatives of the community.

Responsibility	Action
Educational Planning Council	5. Receives and reviews the program structure recommended by the PSC and, if it is accepted as recommended, the program structure is forwarded to the Chief School Officer for review and approval.
	5.1 If the program structure is not approved by the EPC, it is returned to the PSC with the request that it be revised and resubmitted.
Chief School Officer (CSO)	6. Receives and reviews the program structure recommended by the EPC and, if it is accepted as recommended, the program structure is forwarded to the Board of Education for review and approval.
	6.1 If the program structure is not approved by the CSO, it is returned to the EPC with the request that it be revised and resubmitted.
Board of Education	7. Receives and reviews the recommended program structure from the CSO and, if it is accepted as recommended, the Board officially adopts the program structure.
	7.1 If the program structure is not approved by the Board of Education, it is returned to the CSO with the request that it be revised and resubmitted.
Chief School Officer	8. Distributes copies of the adopted program structure to all staff members for information purposes and for use by appropriate staff members (e.g., program chairmen) in organizing district's instructional and non-instructional activities.
	9. Distributes copies of the adopted program structure to all members of the District Planning Council for their information.
	10. Distributes copies of the adopted program structure with appropriate explanatory information to community residents through the local press and/or the district newsletter.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 25
		Cancels None	

SUBJECT: Preparing a Curricular-Fiscal Plan for Each Program

Responsibility	Action
Program Element Coordinator (PEC)	1. Identifies multi-year Program Element objectives and records on Form 20.
	2. Indicates on Form 20 measures of effectiveness used to estimate progress toward achievement of objectives.
	3. Summarizes Program Element experiences that have been implemented to achieve objectives.
	4. Reports past year's cost of operating Program Element (as system operates, this summary will be for five previous years). (See Procedure No. 26 for method of developing this cost figure.)
	5. Records on Form 20 the progress toward achieving objectives during past year (will come to include past five years after PPB system has been operating).
	6. Makes multi-year recommendations for Program Element. Recommendations to include:
	6.1 Explicit objectives for multi-year period.
	6.2 Estimate of next year's cost and three-five year cost projection. (see Procedure No. 26)
	6.3 Expected results for the next budget period and for three-five year period following (related to Program Element objectives).
	6.4 Explicit explanation for increase in next year's cost over previous year's cost.

Responsibility	Action
	7. Indicates other alternative sets of activities considered for the achievement of Program Element objectives on Form 20.
	8. Indicates on Form 20 reasons for recommending one and rejecting the other alternatives.
	9. Indicates what data were available and were used to make the recommendations of Step 6.
	10. Lists major uncertainties of the decision on Form 20.
	11. Lists assumptions made leading to Program Element decisions concerning the curricular-fiscal plan.
	12. Summarizes Steps 1-11 (five to ten pages, called a Program Element Summary, PES; use illustrative Form 20).
	13. Forwards PES to Program Director.
Program Director	14. Reviews Program Element Summaries forwarded to him.
	15. Distributes copies of PES's for his program to all Program Element Coordinators in his program.
Program Element Coordinators	16. Review all PES's within their program, for purpose of discussing, analyzing, and planning program activities.
Program Director	17. Schedules meeting of Program Committee (Program Director and Program Element Coordinators).
Program Committee	18. Develops program objectives from Program Element Summaries and school district objectives.
	19. Discusses and analyzes PES's in framework of major program objectives.
	20. Selects one or two Program Elements for recommendation of an Instructional Systems Analytical Study (ISAS). (see Procedures 36-42, ISAS)

Responsibility Action

21. Reviews recommendations of each Program Element Coordinator.

22. Develops multi-year curricular-fiscal plan for their program.

23. Reviews budget year curricular-fiscal plan in perspective of multi-year projections.

24. Recommends to Program Director a multi-year curricular-fiscal plan for their program.

Program Director

25. Reviews recommendations of Program Committee.

26. Makes adjustments in curricular-fiscal plan as necessary. (e.g., Economic inflation, Job Outline 6 or 7; additional program costs such as Program Director salary.)

27. Summarizes results of Steps 18-26 for presentation to the Educational Planning Council (called a Program Memorandum; use illustrative Form 20). Summary includes:

    27.1 Summary of program costs and results for previous budget period (and for previous five-year period when available).

    27.2 Explicit multi-year program objectives.

    27.3 Projected costs of program activities for multi-year period.

    27.4 Major Program Issue decisions.[1]

    27.5 Rationale for choices made concerning Program Issues.

28. Forwards Program Memorandum to Educational Planning Council.

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[1] Those issues at the program level which need to be brought to the attention of the chief school officer and/or the Board of Education that might require policy changes or that have district-wide curricular-fiscal implications.

Responsibility	Action
Educational Planning Council	29. Reviews each Program Memorandum for the purpose of developing district-wide curricular-fiscal plans to be recommended to the chief school officer and Board of Education.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 26
		Cancels None	

SUBJECT: Determining and Projecting Program Element Costs

Responsibility	Action
Board of Education	1. Determines time horizon to use for making cost projections (e.g., 3 yrs., 4 yrs., 5 yrs.).
Program Element Coordinator	2. Determines resources required for time horizon (Form 21).
	3. Obtains standard price list[1] from School Business Administrator, if available. Otherwise consults catalogues and/or business office for prices to be used in determining future year costs.
	4. Obtains current year salary schedules for staff.
	5. Converts staff resources needed over multi-year period (Form 21) into cost estimates by determining scheduled salary increases from salary schedules for staff for each year of the multi-year period.
	6. Adds scheduled salary increment to current year salaries for multi-year time horizon to obtain budget year salary cost.
	7. Adds scheduled salary increment to budget year salary to determine salary cost for year one.
	8. Repeats Steps 5-7 for each year to end of multi-year time horizon.
	9. Converts for multi-year time horizon, other resource category (e.g., equipment, supplies) requirements into dollar costs.

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[1] Standard price list - a cost reference list developed by the School Business Administrator for use in cost projections. This could include a salary figure to use for cost projections; the cost of equipment items; supply item costs; etc..

Responsibility	Action
	9.1 If unable to cost out any needed resources, obtains assistance from School Business Administrator.
School Business Administrator	10. Determines cost for resources which Program Element Coordinator was unable to cost out.
Program Element Coordinator	11. Sums cost figures for multi-year period to determine cost projections for Program Element (Form 21).

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 27
		Cancels None	

SUBJECT: Preparing a District-Wide Curricular-Fiscal Plan

Responsibility	Action
Educational Planning Council (EPC)	1. Examines major policies and objectives approved by the Board of Education.
	2. Reviews each Program Memorandum in the perspective of the major policies and objectives approved by the Board of Education.
	3. Makes recommendations for changes in each program's curricular-fiscal plan.
Program Director	4. Calls meeting of Program Committee.
	5. Reports recommendations of EPC to Program Committee.
Program Committee	6. Reviews recommendations of EPC.
	7. Makes adjustments in its program's curricular-fiscal plan.
Program Director	8. Reports revised Program Plan (via a revised Program Memorandum) to EPC.
EPC	9. Reviews revised Program Plans.
Assistant Superintendent for Research and Planning	10. Prepares district-wide multi-year curricular-fiscal plan based on Program Plans.
	11. Forwards district-wide plan to Chief School Officer in the form of a recommendation.
Chief School Officer	12. Reviews recommendations of EPC.
	13. Makes adjustments in district-wide curricular-fiscal plan based upon the recommendations of the EPC.
	14. Summarizes district-wide curricular-fiscal plan for presentation to the Board of Education.

Responsibility	Action
	15. Forwards summary of plan to each member of the Board of Education.
Board of Education	16. Reviews curricular-fiscal plan summary.
	17. Schedules an administrative hearing for purpose of detailed review of plan.
Program Directors/ Chief School Officer	18. Bring data supportive of district plan to administrative hearing.
Board of Education	19. Reviews plan in detail with members of staff at administrative hearing.
	20. Makes final decisions regarding content of district-wide plan.
	21. Directs Chief School Officer to draft specific changes in plan (if any) subsequent to administrative hearing.
Chief School Officer	22. Informs staff of decisions made by the Board of Education.
Program Committees	23. Make final and specific alterations in curricular-fiscal plans to reflect views of Board of Education.
	24. Forward revised curricular-fiscal plan to Chief School Officer.
Chief School Officer	25. Reports changes to Board of Education.
Board of Education	26. Authorizes curricular-fiscal plan.
	27. Directs Chief School Officer to prepare materials for use in presenting plan to public.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 28
		Cancels None	

SUBJECT: Developing and Assessing [illegible] Achievement of Program Element Objectives

Responsibility	Action
Program Element Actors[1]	1. Review multi-year goals and objectives approved by the Board of Education.
	2. Discuss general ways in which their particular Program Element should contribute to overall aims of the school district.
	3. Set multi-year objectives for their Program Element.
	4. Write specific objectives for Program Elements.
	5. Indicate how the achievement of each objective will be assessed.
	6. Record objectives and method of measurement.
	7. Indicate when such measurement will take place.
Program Element Coordinator	8. Develops plan to evaluate the current year activities of his Program Element based upon Steps 1-7 above.
Assistant Superintendent for Research and Planning	9. Assists Program Element Coordinator, as needed, in design and execution of evaluation plan.
Program Element Coordinator	10. Executes evaluative plan agreed upon.
Teachers	11. Collect data, according to plan developed in Step 8, needed to evaluate effectiveness of subprogram element.[2]

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[1] Program Element Coordinator and the staff (e.g., teachers) within the respective Program Element.

[2] Subprogram Element - a group of closely related interdependent services or activities contributing directly to the production of a discrete output (e.g., Basic Typewriting, Payroll, Dental Services).

Responsibility	Action
	12. Forward data to Program Element Coordinator.
Program Element Coordinator	13. Compiles data by similar subprogram elements (e.g., all American History classes within Social Studies 10-12 Program Element).
	14. Includes data concerning effectiveness of Program Element in Program Element Summary and for developing Program Element plans.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 29
		Cancels None	

SUBJECT: Appraising the Effectiveness of Program Element Support Services (Interim Appraisal)

Responsibility	Action
Teacher	1. Evaluates facilities, services, and other resources allocated to him during current year and used as aids to achieve Program Element objectives.
	2. Records this appraisal on form provided. (See Appendix, Form 22 for an illustrative Program Element Appraisal Form.)
	3. Forwards appraisal to Program Element Coordinator when requested (e.g., bimonthly).
Program Element Coordinator	4. Reviews all appraisals forwarded to his office.
	5. Takes immediate action to overcome deficiencies within his Program Element.
	6. Notifies teacher submitting appraisal of action that can be taken and when it is likely to be taken to overcome deficiencies.
	7. Meets with teacher to discuss appraisal if necessary.
Teacher	8. Reports to Program Element Coordinator, by exception, any matters not attended to as part of next regular Program Element appraisal.

<table>
<tr><td rowspan="2">Western N. Y.
PPBS
Model</td><td rowspan="2">MASTER
PROCEDURE</td><td>Date
6-30-72</td><td>Procedure:
Budgeting</td></tr>
<tr><td colspan="2">Cancels
None</td></tr>
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SUBJECT: Developing and Implementing a School District Program Budget

Responsibility	Action
School Business Administrator	1. Obtains copies of the district's curricular-fiscal plans for each program.
	2. Updates revenue data forecasts.
	3. Determines amount of financial support to be raised locally.
Board of Education	4. Presents curricular-fiscal plan (including revenue forecasts) for the district to the District Planning Council (DPC).
DPC	5. Reacts to district curricular-fiscal plan.
Board of Education	6. Studies suggestions from the DPC.
School Business Administrator	7. Compiles curricular, fiscal, and statistical data for each program category, program, and program element into the staff program budget document.
Board of Education and the Educational Planning Council	8. Reviews completed staff program budget document and suggests revisions.
Board of Education	9. Adopts the proposed staff program budget.
School Business Administrator	10. Drafts a summary version of the staff document for public dissemination.
Board of Education	11. Adopts summary version of the program budget for public use.
School Business Administrator	12. Prepares materials necessary for budget presentations to the public.
	13. Disseminates program budget to the community through the office of the Chief School Officer.
Board of Education/ District Planning Council	14. Presents and explains the program budget to the community.

Responsibility	Action
Community Residents	15. Vote on the proposed budget.
School Business Administrator	16. Establishes/reviews the account code structure necessary to account for expenditures by program and to produce the required reports.
	17. Accounts for expenditures by program.
	18. Provides necessary financial reports to Program Element Coordinators, Program Directors, and Chief School Officer according to predetermined schedule.
Program Element Coordinators, Program Directors, Chief School Officer	19. Reviews financial reports and reallocates resources if necessary.
	20. Notifies the Board of Education and the Business Office of changes requiring approval.
	21. Approves changes in the curricular-fiscal plans as necessary.
	22. Approves and disseminates annual curricular-fiscal report to the community residents.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 30
		Cancels None	

SUBJECT: Converting the District's Curricular-Fiscal Plan into a Program Budget

Responsibility	Action
School Business Administrator	1. Obtains copies of the detailed multi-year curricular-fiscal plans for each program. (see Form 20, Appendix D)
Educational Planning Council	2. Reviews and specifies the quantity and quality of resources necessary for each program and the recommended alternatives for the next fiscal year. (see Form 21, Appendix D)
School Business Administrator	3. Reviews and updates the cost of resources required for each program and the proposed alternatives by referring to a standard price list or the appropriate procurement personnel.
	4. Compiles program budget data for each program and the proposed alternatives. (Form 21)
	5. Obtains schedule of capital outlay and debt service expenditures (Form 19, Appendix D) for the school district (see Procedure No. 16).
	6. Reviews and updates, if necessary, revenue forecasts from Federal and State sources (see Procedure Numbers 9, 10, 11, 12).
	7. Reviews and updates, if necessary, property valuation forecasts (see Procedure No. 13).
	8. Identifies sources and the amounts of revenue, if appropriate. (Form 24)
	9. Determines amount of local school district support necessary for the proposed budget. (Form 24)
	10. Obtains/completes program cost data and statistics for last year and current year. (Use Form 24a, Appendix D.)

Responsibility	Action
Assistant Superintendent for Research and Planning	11. Computes appropriate program statistics (e.g., enrollment, staff, cost per pupil) for the next year. (Form 24a)
	12. Combines revenue, expenditure, and statistical information for each program and sends to Educational Planning Council (EPC) for review (Form 25 and 24a).
Educational Planning Council	13. Reviews preliminary program budget information and makes recommendations to Chief School Officer.
Chief School Officer	14. Specifies program activities and alternatives to be included in the budget for next fiscal year.
School Business Administrator	15. Reviews decisions concerning placement of costs in the next fiscal budget.
Chief School Officer	16. Presents district's curricular-fiscal plan to the Board of Education.
Board of Education	17. Reviews and revises curricular-fiscal plan to be presented to the District Planning Council (DPC).
	18. Presents Board-approved curricular-fiscal plan to District Planning Council (DPC).
District Planning Council	19. Reacts to Plan and suggests specific revisions.
Board of Education	20. Studies suggestions of DPC and considers recommended revisions to district's curricular-fiscal plan.
	21. Forwards curricular-fiscal plans to chief school officer.
Chief School Officer	22. Revises district's curricular-fiscal plan according to Board of Education directives and resubmits for approval.
School Business Administrator	23. Compiles fiscal plan into final copy of proposed program budget (see sample program budget, Appendix I).

Responsibility	Action
Assistant Superintendent for Research and Planning	24. Compiles curricular information (e.g., goals, objectives, measures of effectiveness) for each Program Element, Program, Program Category, and the District, and included in the program budget.
	25. Organizes all data into staff program budget document for use in budgetary reviews and the management of learning activities.
Board of Education and Educational Planning Council	26. Reviews the completed staff program budget.
Board of Education	27. Adopts the district's proposed staff program budget.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 31
		Cancels None	

SUBJECT: Presenting and Explaining a Program Budget to School District Residents

Responsibility	Action
Assistant Superintendent for Research and Planning	1. Obtains the staff version of the proposed program budget that was adopted by the Board of Education.
	2. Prepares draft of a program budget format for presentation to the public by the Board of Education.
Chief School Officer	3. Reviews with Board of Education public version of program budget.
Board of Education	4. Reviews the format and approves the summary information to be included in the public version of the School District Program Budget.
Assistant Superintendent for Research and Planning	5. Finalizes summary version of the program budget.
Chief School Officer	6. Recommends to Board of Education final version of summary program budget.
Board of Education	7. Approves program budget for presentation to the public.
Assistant Superintendent for Research and Planning	8. Notifies the District Planning Council of meeting to review curricular-fiscal plan and the program budget for presentation to the public.
District Planning Council	9. Recommends materials necessary for budget presentations to the public.
Assistant Superintendent for Research and Planning	10. Develops materials necessary for program budget presentations.
	11. Coordinates dissemination of program budget to the public.

Responsibility	Action
	12. Develops a calendar of activities concerning the school district program budget presentations to the community residents.
	13. Contacts various community groups for possible meetings concerning the school district's program budget.
District Planning Council/District Staff Members	14. Presents and explains the program budget to various community groups.
Assistant Superintendent for Research and Planning	15. Records community reactions to the program budget for possible revisions in future presentations.
Board of Education	16. Presents program budget at annual school district meeting.
Community Residents	17. Vote on school district program budget.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 32
		Cancels None	

SUBJECT: Accounting for School District Expenditures by Program

Responsibility	Action
School Business Administrator	1. Obtains copies of voter-approved program budget.
	2. Reviews account codes to insure that they are complete for recording program expenditure data and generating required financial reports. (see Procedure No. 35)
	3. Records budget appropriations in correct financial account at the beginning of the fiscal year.
Chief School Officer	4. Develops (in subsequent years reviews) decision rules for allocating function-object expenditures to program activities (see example, Appendix K).
	5. Reviews report schedule dates (see Procedure No. 33) and determines frequency of updating (posting) program expenditures.
School Business Administrator	6. Records revenue and expenditure data in appropriate accounts.
	7. Maintains appropriate program account balances for use in developing financial reports.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 33
		Cancels None	

SUBJECT: Providing Current Fiscal Expenditure Reports to Appropriate Individuals

Responsibility	Action
School Business Administrator	1. Identifies and lists the users of program financial reports (e.g., state officials, community residents, Board of Education members, Chief School Officer, Program Directors, and Program Element Coordinators).
	2. Interviews users to identify the content, format, and frequency of the financial reports.
Educational Planning Council	3. Reviews data available and develops the format and content of the financial reports, based upon the information obtained from the user interviews and prior year reports. (See Forms 26, 26a, 26b, and 27, Appendix D, for examples.)
Board of Education	4. Authorizes the issuance of the financial reports.
School Business Administrator	5. Prepares periodic expenditure reports for each Program Element and Program according to schedule.
	5.1 Prepares an expenditure report upon the request of a Program Element Coordinator, Program Director, or Chief School Officer.
	5.2 Prepares a notification for a Program Element Coordinator, Program Director, or Chief School Officer, when an account's encumbered balance reaches the budgeted amount.
	6. Sends expenditure reports to the Program Element Coordinators, Program Directors, Chief School Officer, and other personnel.

Responsibility	Action
Program Element Coordinators, Program Directors, Chief School Officer	7. Reviews periodic expenditure reports and confirms information to date.
	8. Compares expenditure report with plans and objectives for the year when determining the effectiveness and efficiency of their unit.
	9. Revises curricular-fiscal plans, if necessary.
Chief School Officer	10. Presents recommended changes to the Board of Education for consideration and Board action.
Board of Education	11. Approves changes in the curricular-fiscal plans.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 34
		Cancels None	

SUBJECT: Preparing and Presenting Annual Curricular-Fiscal Performance Report to the Public

Responsibility	Action
Program Element Coordinators	1. Prepare report indicating the expenditures and effectiveness of their Program Elements (Form 27, Appendix D) and send to the Program Director.
Program Directors	2. Review expenditure and effectiveness report from each Program Element Coordinator (Form 27) in light of Program Element Summary (Form 20) that was developed when preparing the past year's budget.
	3. Prepare report indicating the expenditure and effectiveness of Program (Form 27) and send to the Educational Planning Council.
Educational Planning Council	4. Obtains copies of past year program budget for the district.
	5. Obtains copies of past year Program Memoranda from each Program.
	6. Reviews expenditure and effectiveness reports from each Program in light of Program Memoranda (Form 20) that were developed when preparing the past year's budget.
	7. Develops and recommends to the chief school officer a curricular-fiscal performance report (Form 27) to be disseminated to the public.
Chief School Officer	8. Reviews and recommends to the Board of Education a curricular-fiscal performance report (Form 27) to be disseminated to the public.
Board of Education	9. Reviews and revises the curricular-fiscal performance report.
	9.1 If review indicates need, sends report to chief school officer for revision.

Responsibility	Action
	10. Approves the past year's curricular-fiscal performance report for dissemination to the public.
	11. Disseminates annual curricular-fiscal performance report to the public.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 35
		Cancels None	

SUBJECT: Designing a Coding Structure for Relating a Function-Object Line-Item Budget with a Program Budget

Responsibility	Action
School Business Administrator	1. Obtains a chart of line-item account codes currently used by the school district personnel.
	2. Analyzes local and state legal requirements for line-item accounting.
	3. Obtains a copy of the school district's program structure.
	4. Compiles a preliminary list of program budget account requirements to obtain program information.
Assistant Superintendent for Research and Planning	5. Interviews primary users of program budget and line-item documents to determine their budgeting, accounting, and reporting requirements.
School Business Administrator	6. Develops a list of requirements and objectives for the code structure based upon the information obtained in Steps 1-5 above.
	7. Identifies the necessary categories (fields) in the proposed account code structure (see Appendix L).
	8. Determines the number of digits required within each category (field).
	9. Determines the number of scheme to be used in each category.
	10. Assigns a number to each account on the line-item and program charts of accounts (see Appendix L).
Assistant Superintendent for Research and Planning	11. Reviews with user representatives the account code structure to check for accuracy and omissions.

Responsibility	Action
	12. Reviews and coordinates all appropriate documents and report code numbers with the new code structure (e.g., budget request forms, purchase orders, invoices, payment vouchers, expenditure reports, statements of objectives).
Chief School Officer	13. Approves account code structure and document code changes.
Assistant Superintendent for Research and Planning	14. Develops communication and implementation plans for users of the new account code structure.
	15. Develops and implements a training plan and the necessary materials for users of the new account codes.
	16. Disseminates list of account codes and revised report codes to appropriate personnel.
	17. Implements training plan for users of account codes.

Part V

INSTRUCTIONAL SYSTEMS ANALYTICAL STUDY (ISAS)

Western N. Y. PPBS Model	MASTER PROCEDURE	Date 6-30-72	Procedure: ISAS
		Cancels None	

SUBJECT: Conducting an Instructional Systems Analytical Study (ISAS)

Responsibility	Action
Program Committees	1. Recommend possible areas for an ISAS to Program Director.
Program Directors	2. Recommend one or two possible areas for an ISAS to Educational Planning Council.
Educational Planning Council (EPC)	3. Selects problem for ISAS.
Program Director	4. Appoints a Director for the selected ISAS.
ISAS Director	5. Recommends an ISAS plan to Program Director.
Program Director	6. Authorizes start of ISAS.
ISAS Director/ISAS Task Force	7. Develops objectives for proposed alternative systems.
	8. Designs alternative instructional systems to achieve objectives.
	9. Estimates future benefits of alternative systems.
	10. Estimates future costs of alternative systems.
	11. Compares future benefits and future costs of alternative systems.
	12. Recommends specific system for implementation to Program Director.
Program Director	13. Reviews recommendation of ISAS Director.
	14. Approves selection of specific system.
	15. Requests funds to implement approved system in annual submission of budget for his program.

Responsibility		Action
Educational Planning Council	16.	Reviews request of Program Director and forwards with comments to Chief School Officer.
Chief School Officer	17.	Reviews requests of Program Director and Educational Planning Council.
	18.	Submits a recommendation to the Board of Education.
Board of Education	19.	Takes final action on recommended instructional system.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 36
		Cancels None	

SUBJECT: Identifying Appropriate Program Element for Conducting an Instructional Systems Analytical Study

Responsibility	Action
Program Committee[1]	1. Reviews past and projected outcomes of program elements.
NOTE: If the program element for an ISAS is not chosen from a comparative review of all Program Memoranda (stating past and projected outcomes) begin with Step 4.	2. Determines which of the above program elements might benefit the most from an Instructional Systems Analytical Study (ISAS), using Worksheet A (Appendix D). 3. Selects one program element for an ISAS. 4. Directs Coordinator of selected program element to prepare summary statement of need for an ISAS in his program element.
Program Element Coordinator	5. States the needs which the selected program element activities have been designed to satisfy. 6. Identifies the population for whom alternative systems[2] will be designed. 7. Identifies other groups likely to be affected by the design of alternative systems. 8. Lists, in general terms, the outcomes desired from the implementation of the alternative systems to be designed.

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[1] Composed of Program Director and Program Element Coordinators in each program. (See Functions List Number 9.)

[2] The purpose of the study is to design alternative sets of activities to accomplish more effectively program and program element purposes. Each alternative set of activities will be referred to as a system, each will have identifiable inputs, a specific pattern of interaction, and each will be designed to accomplish the set of program element objectives decided upon.

Responsibility	Action
	9. Specifies the data which will be required to conduct the ISAS.
	10. Reviews Program Memorandum and district data files to determine that portion of required data which is available.
	11. Designs a plan to acquire other required data.
	12. Specifies constraints to design of the alternative systems, e.g., financial, legal, political, organizational, developmental.
	13. Specifies other school district programs likely to be affected by the design of alternative systems.
	14. Designs a plan for communicating with representatives of programs so affected.
	15. Drafts Form 28, SUMMARY OF PROPOSED INSTRUCTIONAL SYSTEMS ANALYTICAL STUDY. (See Appendix D)
	16. Presents completed Form 28 to Program Committee.
Program Committee	17. Reviews completed Form 28, using Form 28 Review Checklist (Appendix D).
	18. Makes recommendations for revisions (if any).
Program Element Coordinator	19. Revises Form 28 as recommended by Program Committee.
	20. Presents revised Form 28 to Program Director.
Program Director	21. Reviews and forwards revised Form 28 to Educational Planning Council.
Educational Planning Council (EPC)	22. Assigns a number to each Form 28 received from Program Directors.

Responsibility | Action

23. Reviews all requests for an ISAS (completed Form 28), using Form 28 Review Checklist.

24. Approves request(s) for an ISAS (number approved depends upon resources required and current district capability to conduct studies).

25. Directs appropriate Program Director(s) to continue ISAS (with recommended changes, if any).

26. Directs other Program Directors to:

    26.1 Resubmit request for study at a later date;

    or

    26.2 Continue study with resources normally available at program level.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 37
		Cancels None	

SUBJECT: Conducting an Instructional Systems Analytical Study: Organizing the Study

Responsibility	Action
Program Director	1. Appoints official to direct Instructional Systems Analytical Study (ISAS). (Usually the Coordinator of the Program Element in which the proposed system will function.)
ISAS Director	2. Determines personnel skills necessary to conduct ISAS.
	3. Recommends personnel for ISAS Task Force[1] to Program Director.
Program Director	4. Approves composition of Task Force (with revisions if necessary).
	5. Recruits Task Force.
ISAS Director	6. Prepares schedule of activities for ISAS (Worksheet B, Appendix D).
Program Director	7. Authorizes start of ISAS.

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[1] This Task Force is composed of the personnel with the skills that will be required to conduct the ISAS adequately. Its composition will vary, but it usually will include teachers directly affected, Assistant Superintendent for Research and Planning and the School Business Administrator (or their representatives), students, representatives of other programs (see Steps 13 and 14, Procedure No. 36), community representatives, and outside consultants. This Task Force will not need to function as a group. They may complete assignments independently. The ISAS Director coordinates their efforts.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 38
		Cancels None	

SUBJECT: Conducting an Instructional Systems Analytical Study: Setting Objectives for the Alternative Systems to be Developed

Responsibility	Action
ISAS Director[1]	1. Gathers data on target population, e.g., level of achievement, previously acquired skills, any special skills or handicaps.
	2. Reviews demographic data for additional information about pupils and community for the purpose of checking the relevance of the objectives and alternative systems to be designed.
	3. Identify any community resources which might be utilized in the design of alternatives.
	4. Surveys existing competencies of staff.
	5. Reviews statements of school district philosophy to insure that objectives of the alternative systems will be consistent with them.
	6. Obtains summary statement of learning theory currently governing the Program Area.
	7. Summarizes data Steps 1-6, using Worksheet C (Appendix D).
	8. Presents data summary to Task Force.
ISAS Task Force	9. Reviews background data.
	10. Drafts the objectives for each subprogram element area.[2]

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[1] In cooperation with the Assistant Superintendent for Research and Planning.

[2] Refer to the Glossary (see Appendix G) for a definition of Subprogram Element Area.

Responsibility	Action
	11. Establishes performance level for each objective.
	12. Determines what methods of measuring attainment of objectives might be feasible.
	13. Indicates when such measurement should take place (starting from initial operation of proposed system).
	14. Reviews and revises statements of objectives (use Worksheet D, Appendix D).
	15. Classifies objectives.[3]
	16. Presents objectives to Program Director for review.
Program Director	17. Suggests changes in statements of objectives (use Worksheet D, Appendix D).

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[3] A variety of classification schemes are available. For further discussion of the schemes referred to here and for suggestions about other schemes, see the following sources (also see Volume IV, ISAS Concept Lesson and Performance Guides of this Model):

a. B. S. Bloom, et al., Taxonomy of Educational Objectives: Handbook I, the Cognitive Domain. New York: Longmans, Green (David McKay), 1956.

b. D. R. Krathwohl, "The Taxonomy of Educational Objectives - Its Use in Curriculum Building." In C. M. Lindvall, Defining Educational Objectives. Pittsburgh: University of Pittsburgh Press, 1964.

c. D. R. Krathwohl, et al., Taxonomy of Educational Objectives: Handbook II, the Affective Domain. New York: David McKay, 1964.

d. R. M. Gagne, "The Implications of Instructional Objectives for Learning." In C. M. Lindvall, ed., Defining Educational Objectives. Pittsburgh: University of Pittsburgh Press, 1964.

e. H. J. Sullivan, "Objectives, Evaluation, and Improved Learner Achievement." In Instructional Objectives. AERA Monograph #3, Chicago: Rand McNally, 1969.

f. L. L. Tyler, "A Case History: Formulation of Objectives from a Psychoanalytical Framework." In Instructional Objectives. AERA Monograph #3, Chicago: Rand McNally, 1969.

Responsibility	Action
ISAS Task Force	18. Reviews objectives taking into account suggestions of Program Director.
	19. Makes desired revisions in statements of objectives.
	20. Begins designing alternative systems using statements of objectives as inputs.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 39
		Cancels None	

SUBJECT: Conducting an Instructional Systems Analytical Study: Specifying Alternative Systems to Achieve Desired Objectives[1]

Responsibility	Action
Program Element Coordinator	1. Identifies the competencies that the target population has already acquired. (See Procedure No. 38, Step 1 and use Worksheet E, Appendix D.)
ISAS Task Force	2. Reviews Form 28, SUMMARY OF PROPOSED INSTRUCTIONAL SYSTEMS ANALYTICAL STUDY (ISAS).
	3. Reviews statements of desired objectives. (See Procedure No. 38.)
	4. Determines the difference between present level of competence and the desired competence as expressed in objectives. (See Procedure No. 38, Step 11.)
	5. Estimates range of learning capabilities of target population. Criteria for this estimation might include: interest, need, aptitude, achievement, etc..
	6. Estimates the difficulty mastering the areas of deficiency posed to learners with various capabilities.
	7. Specifies optimum sequence of subprogram element areas for learners with various capabilities.
	8. Determines whether subprogram element areas are in competition or are basic and facilitating.[2]

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[1] The steps and definitions in this procedure are based upon the following: Banathy, B. H., Instructional Systems. Palo Alto, California: Fearon Publishers, 1968.

[2] See Glossary (Appendix G) for definitions of competition and of basic and facilitating.

Responsibility	Action
	9. Indicates the frequency with which the target population will use the knowledge and skills in each subprogram element area (e.g., Great, Moderate, Seldom).
	10. Summarizes Steps 1-9 using Worksheet F (Appendix D).
	11. Determines possible alternative arrangements and presentations of the Program Element content given the various learning capabilities of the target population.
	12. Specifies alternative systems to achieve objectives; based upon Steps 6-11 above.
	13. Identifies the specific components needed to operationalize each system identified in Step 12, e.g., teachers, counselors, media, classroom equipment, materials, supplies, etc.).
ISAS Director	14. Completes each alternative system by specifying when and where each alternative activity take place.
	15. Lists the criteria that will be used to evaluate the effectiveness of each alternative system.
	16. Identifies other groups which may be affected by each alternative system.
	17. Developes a narrative summary of the operation of each alternative system.
Assistant Superintendent for Research and Planning/ISAS Task Force	18. States specifically how the performance of each alternative system will be measured. (Making preliminary statement Procedure No. 38, Step 11 more specific, e.g., teacher-made test, standardized test, criterion-referenced test, etc.)
	19. Summarizes Steps 11-18 using Form 29 (Appendix D).

Responsibility	Action
	20. Presents Form 29 to ISAS Task Force for use in estimating cost and benefits of each alternative.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 40
		Cancels None	

SUBJECT: Conducting an Instructional Systems Analytical Study: Estimating Potential Benefits of Each Alternative System

Responsibility	Action
ISAS Task Force	1. Reviews description of alternative systems (Form 29).
	2. Lists five to ten major effectiveness variables.[1]
	3. Lists effectiveness variables on horizontal and vertical columns of a matrix (use Worksheet G, Appendix D).
	4. Determines relative importance of each effectiveness variable by comparing each pair on the matrix until all comparisons have been made.
	5. Assigns a weight for each effectiveness variable (after adjusting for zero) using Worksheet G.
	6. Reviews the time interval at which the benefits (outcomes) will be estimated (see Form 29).
	7. Selects panel of experts.[2]
	8. Presents description of each alternative system and the outcomes (Form 29) to the panel of experts.
	9. Determines a value scale for each effectiveness variable.

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[1] See the Glossary (Appendix G) for a definition of effectiveness variable. Also see Volume IV, ISAS Concept Lesson and Performance Guides of this Model.

[2] The nature of the ISAS would determine who the experts are.

Responsibility	Action
Experts	10. Estimate the effectiveness of each alternative in relation to each effectiveness variable, using the value scale provided (Form 30, Appendix D).[3]
ISAS Director	11. Collects completed Form 30 from each expert.
	12. Lists effectiveness variables on Form 30a (Appendix D).
	13. Lists weight for each effectiveness variable on Form 30a (taken from Worksheet G).
	14. Averages the value of each effectiveness variable for each alternative by adding the values indicated by experts for each effectiveness variable on Form 30 and dividing by the number of experts.
	15. Lists average value of each effectiveness variable for each alternative on Form 30a.
	16. Multiples weight for each effectiveness variable times its average value for each alternative and places product in appropriate column on Form 30a.
	17. Sums products for all effectiveness variables for each alternative to obtain an effectiveness score for each alternative.
	18. Repeats Steps 3-17 for each future year deemed appropriate (effectiveness for each alternative for: next year, year 2, year 3, etc.).
	19. Records results of Steps 3-18 on Form 33a.
	20. Presents Form 33a to Program Element Coordinator for his use in selecting alternative system for implementation.

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[3] Use separate form 30 and 30a for each year of five-year projection.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 41
		Cancels None	

SUBJECT: Conducting an Instructional Systems Analytical Study: Developing Cost Estimates for Alternative Systems

Responsibility	Action
ISAS Director	1. Reviews Form 29 which displays a description of each alternative system.
	2. Determines a suitable time period and costing unit[1] to use for multi-year cost projections.
	3. Determines cost categories to be used in making cost estimates. (For example, personnel cost, equipment purchase price and annual operating and maintenance costs, inservice training costs, supplies, future research and/or development costs.)
	4. Constructs Form 31 (Appendix D), Resources Required by Cost Category, for each alternative system.
	5. Estimates resources required in each category for each system. (Use Form 29 as a guide.)
ISAS Task Force	6. Reviews completed Form 31 for each system until consensus is reached that the list for each category of each alternative system meets educational specifications of each system as noted by Form 29.
	7. Forwards final Form 31 for each alternative system to business office.
School Business Administrator	8. Constructs Form 32, Costs of Alternative System by Cost Category, for each system.

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[1] e.g., cost per pupil, aggregate cost, cost per mile, etc.

Responsibility		Action
	9.	Transfers totals from the Form 32 for each alternative to Form 33, Summary Costs for Each Alternative System.
	10.	Forwards Forms 32 and 33 to ISAS Director.
ISAS Director	11.	Records summary costs data on Form 34, on which costs and benefits can be prepared facilitating a decision as to which alternative system to select.

Western N. Y. PPBS Model	PROCEDURE	Date 6-30-72	Procedure No. 42
		Cancels None	

SUBJECT: Conducting an Instructional Systems Analytical Study: Selecting an Alternative System for Implementation

Responsibility	Action
Program Element Coordinator	1. Summarizes the costs and effectiveness of each alternative system on Form 34.
	2. Plots the costs and outcomes of each alternative system on a graph (using a separate graph for each year for which costs and effectiveness is projected).
Program Director	3. Indicates the cost and outcome constraints (if any) on the graph.
ISAS Task Force	4. Selects the alternative system.
Program Director	5. Review the alternative system selected for implementation.
Educational Planning Council	6. Determines whether the system should be tested before installing it in the educational program.
Program Director	7. Develops appropriate guidelines for system implementation.

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Part VI

JOB OUTLINES

Western N. Y. PPBS Model	JOB OUTLINE	Date 6-30-72	Job Outline No. 1
		Cancels None	

SUBJECT: Computing Sample Size for Administration of Questionnaires

Responsibility

Assistant Superintendent for Research and Planning

Action

1. Determines desired maximum deviation of sample mean (M) from population mean (u) in terms of population standard deviation (σ). (e.g., may desire M to be within $.1\sigma$ of u) (see Step 4, Procedure No. 3).

2. Determines maximum desired probability (P) that a value yielded by sample will contain the true value with the range of error specified in Step 1 (e.g., want a sample size selected that will yield the results we are willing to live with 95 out of 100 times). (see Step 4, Procedure No. 3)

3. Expresses probability agreed upon in Step 2 as a standard score (e.g., 95/100 = 1.96).[1]

4. Computes sample size as follows, using formula

$$P = \frac{M - u}{\sigma m}$$

   a. Substitute agreed upon levels of error to get:

$$1.96 = \frac{.1\sigma}{\sigma m}$$

---

[1] The value 1.96 can be obtained by consulting any table of normal probabilities, which will also yield standard scores for probabilities other than 95/100. For a discussion of the properties of the normal distribution and for directions on how to use a table of normal probabilities, see Weinberg, J. A., Statistics: An Intuitive Approach. Belmont, California: Wadsworth, 1966, Chapter 8. This reference also contains a table (p. 321) which converts probabilities to standard scores.

Responsibility **Action**

b. Since $\sigma m = \frac{\sigma}{\sqrt{N}}$, by further substitution the equality becomes:

$$1.96 = \frac{.1\,\sigma}{\frac{\sigma}{\sqrt{N}}}$$

c. Multiplying both sides of the equation by ten

$$\left[(10)\ 1.96 = 19.6 \text{ and } (10)\ \frac{.1\,\sigma}{\frac{\sigma}{\sqrt{N}}} = \frac{\sigma}{\frac{\sigma}{\sqrt{N}}}\right]$$

allows the equality to become:

$$19.6 = \frac{\sigma}{\frac{\sigma}{\sqrt{N}}}$$

d. Dividing the numerator by the denominator on the right hand side of the equation makes it:

$$19.6 = \sqrt{N}$$

(σ 's in numerator and denominator cancel each other out.)

e. Squaring both sides of the equation gives the following result:

$$\begin{aligned} (19.6)^2 &= N \\ 384.16 &= N \\ 384 &= N \end{aligned}$$

Western N. Y. PPBS Model	JOB OUTLINE	Date 6-30-72	Job Outline No. 2
		Cancels None	

SUBJECT: Selecting Stratified Random Sample of Pupils for Inventory of Pupil Opinion Questionnaire

Responsibility	Action
Assistant Superintendent for Research and Planning	1. Obtains a separate alphabetical list of boys and girls for grade levels to be surveyed.
	2. Determines the total number of pupils in each grade level and the number of boys and girls in each grade level.
	3. Computes the proportion of boys and girls at each grade level.
	4. Computes a sample size equal to 20% of the pupils at each grade level and divides the sample between boys and girls according to the proportion of boys and girls at each grade level. (Example: 500 pupils in grade nine; 20% of 500 = 100 in sample; 225 boys = 45%; 45% boys proportion equals 45 boys in sample.)
	5. Numbers pupils on boys list and on girls list then in separate series to render sample sizes desired.
	6. Computes the count for rendering desired sample size (Example: 225 boys ÷ 45 = 5 count).
	7. Selects on each list a random starting number, moves to that name on the pupil list, and then using the count (Step 6) selects the pupils in the sample. (Example: select number to begin (e.g., 003); name on list opposite 003 becomes first selected name; then count down 5 on list - becomes second name; count 5 again - pick third name, etc. through 45 names needed for sample.)

Western N. Y. PPBS Model	JOB OUTLINE	Date 6-30-72	Job Outline No. 3
		Cancels None	

SUBJECT: Selecting Random Sample of Staff for Administration of Professional Staff Opinion Questionnaire

Responsibility	Action
Assistant Superintendent for Research and Planning	1. Obtains staff directory containing names of all professional staff members listed alphabetically, and numbered consecutively.
	2. Determines the total number of professional staff members.
	3. Computes the sample size equal to one-third of the staff. (Example: 300 staff members; 1/3 of staff = 100 sample size.)
	4. Computes the count for rendering desired sample size. (Example: 300 staff size ÷ 100 = 3 count.)
	5. Selects a random starting number, moves to that name in directory and then using count generates sample list. (Example: Select a three-digit random number (e.g., 002); count from beginning name to number 002 and that becomes first name in sample; count 3 to 005, that becomes second name; count 3 more, etc..)

Western N. Y. PPBS Model	JOB OUTLINE	Date 6-30-72	Job Outline No. 4
		Cancels None	

SUBJECT: Determining the Rate of Staff Turnover

Responsibility	Action
Program Element Coordinator	1. Obtains number of staff members employed in Program Element for each of past five years by category (e.g., teachers, teacher aides). 2. Determines number of staff members in each category leaving the Program Element for each of past five years. 3. Divides number of staff leaving each year (obtained in Step 2, above) by number of staff in that category (Step 1, above) to obtain rate of staff turnover for each of past five years. 4. Computes average staff turnover rate by adding turnover rate for past five years and dividing by five. 5. Computes average salary in each category of staff leaving the district for past five years. 6. Multiples staff turnover rate (Step 4) times number of staff projected in each category for each of next five years to obtain estimated number of staff leaving. 7. Multiples the estimates number of staff leaving during each of the next five years (obtained in Step 6, above) times the average leaving salary (Step 5, above) for that year. Note: add any scheduled salary step increments to the average leaving salary. 8. Repeats Steps 1-7 for each staff category. 9. Forwards information to Program Director for planning purposes when developing alternative strategies for his program.

Western N. Y. PPBS Model	JOB OUTLINE	Date 6-30-72	Job Outline No. 5
		Cancels None	

SUBJECT: Constructing an Inflation Data Projection Chart and Deriving an Index of Inflation

Responsibility	Action
Assistant Superintendent for Research and Planning	1. Obtains information concerning inflation of educational resources from following publications:

1. Obtains information concerning inflation of educational resources from following publications:
    a) School Management. Annual "Cost of Education Index" (January issues)
    b) Appraising School District Fiscal Policy. School district financial studies by the Western New York School Development Council, Williamsville, New York.
2. Obtains inflation data for five-year period immediately preceding current year.
3. Constructs an inflation data chart for:
    a) all educational costs,
    b) Fixed Charges costs,
    c) Materials costs,
    d) Health costs,
    e) Teacher Salary costs.
    (See Appendix H for illustrative charts.)

    3.1 Indicates percentage of inflation increments (e.g., 20%; 25%) on vertical axis.

    3.2 Indicates school-years on horizontal axis.

    3.3 Plots expenses for each year of five-year period preceding current year.

    3.4 Calculates average difference between year one and year five by finding the difference between year one and year five and dividing by five.

    3.5 Projects average increase to year five of projection period.

Responsibility	Action
	3.6 Finds basis of minimum increase projection by calculating which of the five preceding years shows the minimum increase.
	3.7 Projects minimum increase to year five of projection period.
	3.8 Finds basis of maximum increase projection by calculating which of the five preceding years shows the maximum increase.
	3.9 Projects maximum increase to year five of projection period.
	3.10 Draws a vertical line upward from the current year point on year axis and labels this vertical line "projection index axis."
	3.11 Designates point where "average projection line" crosses "projection index axis" at index point of 1.00.
	3.12 Using same measurement scale as used on inflation percentage axis, measures off projection index designating points above index point of 1.00 as increasing and points below 1.00 as decreasing.
	4. Forwards data projection charts to Program Directors for use in adjusting budget cost projections. (See Procedure 25.)

Western N. Y. PPBS Model	JOB OUTLINE	Date 6-30-72	Job Outline No. 6
		Cancels None	

SUBJECT: Adjusting the Curricular-Fiscal Plan for Economic Inflation (an optional method)

Responsibility	Action
Program Director	1. Obtains cost projections (Form 21) from each Program Element Coordinator.
	2. Obtains from Assistant Superintendent for Research and Planning the inflation data projection charts (developed in Job Outline 5) containing inflation figures to be used in various resource categories (e.g., inflation figure for: fixed charges; teachers salaries; materials; health costs).
	3. Obtains inflation figure from projection chart for each resource category, for each year in the projection period.
	4. Multiples each cost projection times inflation figure for each year in projection period.
	5. Lists inflated costs derived in Step 3 above on Form 23.
	6. Sums each year's inflated cost projections to obtain "inflated" curricular-fiscal plan for the program.

Western N. Y. PPBS Model	JOB OUTLINE	Date 6-30-72	Job Outline No. 7
		Cancels None	

SUBJECT: Adjusting the Curricular-Fiscal Plan for Economic Inflation by Using a Single Inflation Figure (an optional method)

Responsibility	Action
Program Director	1. Obtains curricular-fiscal plan for his program.
	2. Obtains single educational inflation figure to be used for planning purposes in the district from Assistant Superintendent for Research and Planning.
	3. Multiples multi-year program costs (obtained from curricular-fiscal plan) times educational inflation figure (obtained in Step 2 above) to obtain adjusted program multi-year costs. (Use Form 23.)

APPENDICES

Appendix A

Sample Table Design for Use in Sequence of Planning, Administering, and Summarizing Information Obtained from Community Opinion Survey

1. A blank table, constructed before Community Opinion Questinnaire (COQ) is administered, indicates what school leaders want to know about community perceptions. As a check of the COQ before it is administered, construct a table, such as Table 1 below, to see if the COQ will in fact collect information to fill the table. For example, if the board wants to know how willing the community is to support higher taxes merely to continue the present level of services, the following table could be instructed.

Table 1. Citizen Willingness to Pay Higher Taxes to Continue Present Level of Educational Services

Categories	Number Responding	Affirmative Responses	Negative Responses	No Opinion
1. Among citizens with children in school				
a) Public School				
b) Parochial School				
c) Private School				
Totals				
2. By occupation				
a) Blue Collar				
b) Professional				
c) Management				
d) Self-employed				
Totals				
3. Voting				
a) Last Budget Vote				
1) Did Vote				
2) Did Not Vote				
Totals				

2. If Table 1 contains the categories of information the leaders of the district want, one check of the COQ would be to see if it will uncover the information needed to complete Table 1.

3. Once the COQ is administered, clerks can be trained to tabulate responses and post raw data in the blank spaces in the table.

4. Next, the Assistant Superintendent for Research and Planning can convert the raw data to percentages, or to whatever form will facilitate analysis of COQ results and school district planning.

5. This is only one illustration. In actual practice, a district will probably construct several tables (perhaps five to eight or more), and they will reflect the specific questions district leaders have about community opinions.

APPENDIX B

1. Sample Questions for a Community Opinion Questionnaire
2. Sample Questions for a Professional Staff Opinion Questionnaire
3. Sample Questions for a Student Opinion Questionnaire
4. Precomputed Sample Sizes with Degrees of Precision
5. Illustrative Student Government Opinionnaire

1. SAMPLE QUESTIONS FOR A COMMUNITY OPINION QUESTIONNAIRE

DIRECTIONS

Please read each question carefully and indicate your response(s) in the space(s) provided. Please feel free to state either favorable or unfavorable opinions.

If you have more than one child attending the Local Central School, please report your overall opinions instead of answering for one child in one question and for another child in another question.

If a question does not apply to you and you do not wish to answer, please leave it BLANK. However, if a question does not apply to you, but you have an opinion and wish to respond, please feel free to do so.

IMPORTANT: The data obtained by this survey questionnaire will be regarded as strictly confidential. No specific responses or findings will ever be published which could be traced back to any particular individual. You will remain anonymous. Do not sign your name.

---

1. Please check (✓) the correct response.

___1) Parent of a child in the Local Central School.
___2) Parent of a child in a private or parochial school.
___3) Parent of a child who formerly attended the Local Central School.
___4) Have no children.
___5) None of the above.

2. How long have you lived in the Local Central School district?

___Less than 2 years
___3 to 5 years
___6 to 10 years
___11 to 15 years
___Over 15 years

3. If you own your own home, please check the category which comes closest to its value on the market today.

___Less than $15,000
___$15,000 to $20,000
___$20,000 to $25,000
___$25,000 to $30,000
___$30,000 to $50,000
___Over $50,000

4. Which of the following categories best approximates the total annual income of this household?

___Less than $3,000
___$3,000 to $5,000
___$5,000 to $10,000
___$10,000 to $15,000
___$15,000 to $25,000
___More than $50,000

5. How much formal education has the head of household completed?

___6 years or less
___7 to 11 years
___High school graduate
___Some college
___College graduate
___Advanced graduate/professional training

Check the answers which apply to you.

11. In general, are you satisfied with the school your child is attending?

___1) Very well satisfied.
___2) Satisfied.
___3) About half and half.
___4) Dissatisfied.
___5) Very dissatisfied.

12. In general, how often does the teacher(s) and officials in his school treat your child fairly?

___1) Always treated fairly
___2) Usually treated fairly
___3) Treated fairly about half the time
___4) Seldom treated fairly
___5) Never treated fairly
___6) I have no opinion

13. Does your child's teacher(s) really care about your child as a person who needs sympathetic understanding and attention?

___1) Yes
___2) No
___3) Uncertain

14. How much help does the school usually give your child in solving his social problems?

___1) All or almost all the help he needs
___2) Considerable amount of the help he needs
___3) Little of the help he needs
___4) I have no opinion

15. How much of what your child is studying in school do you think will be useful to him in everyday living?

___1) Practically everything he is studying
___2) Most of what he is studying
___3) About half of what he is studying
___4) Considerably less than half of what he is studying
___5) Very little of what he is studying
___6) I have no opinion

Circle the response which best indicates how you feel about each statement.

16. I believe this school district spends too much money on educational "extras."

Strongly Agree	Agree	Disagree	Strongly Disagree

17. I believe the only way to maintain our present level of education in this district is for the state to increase financial aid to schools.

Strongly Agree	Agree	Disagree	Strongly Disagree

18. I believe this school district spends the taxpayer's money wisely.

Strongly Agree	Agree	Disagree	Strongly Disagree

19. I was well informed by school district officials about the tax increase necessary to fund the last budget proposal.

Strongly Agree	Agree	Disagree	Strongly Disagree

Check the response which best indicates how you feel about each statement.

20. a. Some people feel that the only way the schools can keep up the services they are now offering is to increase taxes. If this turns out to be true, should taxes be increased or school services be cut?

___1) I strongly feel that taxes should be increased.
___2) I am inclined to feel that taxes should be increased.
___3) I am not sure.
___4) I am inclined to feel that school services should be cut.
___5) I strongly feel that school services should be cut.

b. If you feel that school services should be cut, what things do you think should be cut out?____

____

21. Do you feel that teachers are paid too much or too little for the work they are expected to do?

___1) I strongly feel that teachers are paid too much.
___2) I am inclined to feel that teachers are paid too much.
___3) Teachers are paid about the right amount.
___4) I am inclined to feel that teachers are not paid enough.
___5) I feel strongly that teachers are not paid enough.
___6) I have no opinion.

2. SAMPLE QUESTIONS FOR A PROFESSIONAL STAFF OPINION QUESTIONNAIRE

INVENTORY OF PERSONAL DATA

FILL IN the appropriate responses

1. Sex____ 2. Years employed in this system_____

3. Years in profession_____

CIRCLE the appropriate responses

4. Position: Teaching Supervisory-Administrative

5. Grade levels taught or administered: K-3 4-6 7-9 10-12

Check (✓) the answers which apply to you.

11. In general, are you satisfied or dissatisfied with the school in which you teach?

___1) Very well satisfied
___2) Satisfied
___3) About half and half
___4) Dissatisfied
___5) Very much dissatisfied
___6) I have no opinion

12. In general, how often do the teachers and other officials of your school treat the pupils fairly?

___1) Always
___2) Usually
___3) About half the time
___4) Seldom
___5) Never or almost never
___6) I have no opinion

13. How many of the teachers in your school really seem to care about each pupil as a person who needs sympathetic understanding and attention?

___1) All
___2) Most
___3) About half
___4) Few
___5) None or almost none
___6) I have no opinion

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14. How much help does the school usually give the pupils in solving their social problems?

___1) All or almost all needed
___2) Considerable amount
___3) Little of help needed
___4) I have no opinion

15. a. All things considered, how much do you think the pupils in your school are getting out of their schoolwork?

___1) About all they could get
___2) Somewhat less than they could get
___3) Considerably less than they could get
___4) A great deal less than they could get
___5) I have no opinion

b. If you feel that the pupils aren't getting as much out of their schoolwork as they could get, what do you think the reasons are?

___1) They don't study hard enough
___2) The work is too hard
___3) They don't seem to understand the assignments
___4) We can't give them enough individual help
___5) We can't give enough attention to slow learners
___6) Not enough opportunities for rapid learners
___7) They have too much schoolwork to do (assignments too large or too many subjects)
___8) They do too much work outside school
___9) They spend too much time on student activities (parties, clubs, athletics, etc.)
___10) They are not interested in schoolwork

16. How much of what the pupils in your school are studying do you think will be useful to them in everyday living?

___1) Practically everything they are studying
___2) Most of what they are studying
___3) About half of what they are studying
___4) Considerably less than half
___5) Very little of what they are studying
___6) I have no opinion

17. Do you feel that the total work load (teaching, advising, supervising activities--"everything") is as equitably divided as possible among the teachers in your school?

___1) Yes
___2) No
___3) Uncertain

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18. How much do you like or dislike your present teaching assignment?

___1) I like it very much
___2) I like it
___3) About half and half
___4) I dislike it
___5) I dislike it very much

19. To what degree do unpleasant personal relationships among the members of your teaching staff interfere with the effective functioning of the school?

___1) A great deal
___2) Considerably
___3) Some
___4) Little or not at all
___5) I am not aware of any unpleasantness in these relationships

20. All things considered, are you satisfied or dissatisfied with the way you are treated by the "administration" of your school?

___1) Very well satisfied
___2) Satisfied
___3) About half and half
___4) Dissatisfied
___5) Very much dissatisfied

21. How much of your time is taken up by faculty meetings, committee work, conferences, or other types of school meetings?

___1) Far too much
___2) Somewhat too much
___3) About the right amount
___4) We need more of this
___5) I have no opinion

22. In your opinion, how often are parents treated considerately when they visit the school?

___1) Always
___2) Usually
___3) About half the time
___4) Seldom
___5) Almost never
___6) I have no opinion

3. SAMPLE QUESTIONS FOR A STUDENT OPINION QUESTIONNAIRE

INVENTORY OF PERSONAL DATA

FILL IN the appropriate responses

1. Age_____ 2. Sex_____ 3. Present Grade Level_____

CIRCLE the appropriate responses

4. At what grade level did you first attend this school?

K 1 2 3 4 5 6 7 8 9 10 11 12

5. What is your approximate grade average for school?

A B C D F

6. Do you own a car? Yes No

Check (✓) the answers which apply to you.

11. In general, are you satisfied or dissatisfied with your school?

___1) Very well satisfied
___2) Satisfied
___3) About half and half
___4) Dissatisfied
___5) Very much dissatisfied

12. In general, how often do the teachers and other school officials treat you fairly?

___1) Always
___2) Usually
___3) About half the time
___4) Seldom
___5) Never or almost never
___6) I have no opinion

13. How many of your teachers seem really to care about you as a person who needs individual understanding and attention?

___1) All
___2) Most
___3) About half
___4) Few
___5) None or almost none
___6) I have no opinion

14. How much help does the school give you in solving your social problems?

___1) All the help I need
___2) Considerable amount of the help I need
___3) Little of the help I need
___4) I have no opinion

15. a. All things considered, how much do you think you are getting out of your schoolwork?

___1) About all I could get
___2) Somewhat less than I could get
___3) Considerably less than I could get
___4) A great deal less than I could get
___5) I have no opinion

b. If you feel that you aren't getting as much out of your schoolwork as you could get, what do you think the reasons are?

___1) I don't study hard enough
___2) The work is too hard
___3) I don't understand the assignments
___4) Teachers do not give individual help
___5) Teachers do not give enough attention to slow learners
___6) Not enough opportunities for rapid learners
___7) I have too much schoolwork to do. (Assignments too large or too many subjects.)
___8) I do too much work outside school
___9) I spend too much time on student activities (parties, clubs, athletics, etc.)
___10) I am not interested in schoolwork
___11) Other reasons

16. How much of what you are studying do you think will be useful to you in everyday living?

___1) Practically everything I am studying
___2) Most of what I am studying
___3) About half of what I am studying
___4) Considerably less than half of what I am studying
___5) Very little of what I am studying
___6) I have no opinion

17. In general, how well satisfied are you with the variety (number and nature) of the subjects that your school offers?

___1) Very well satisfied
___2) Well satisfied
___3) About half and half
___4) Dissatisfied
___5) Very much dissatisfied
___6) I have no opinion

18. Are you satisfied or dissatisfied with the teaching methods used in your school?

___1) Very well satisfied
___2) Satisfied
___3) About half and half
___4) Dissatisfied
___5) Very much dissatisfied
___6) I have no opinion

19. Are there things that you should be learning right now which are not being taught in your school?

___1) No
___2) A few things
___3) Many things
___4) I have no opinion

20. In general, how proud of your school are you?

___1) Very proud
___2) Proud
___3) Not proud
___4) Ashamed

21. Does the school give you enough help in choosing a vocation?

___1) Yes
___2) No
___3) Sometimes

22. Does the school give you enough help in getting information about colleges and choosing a college?

___1) Yes
___2) No
___3) Sometimes

4. PRECOMPUTED SAMPLE SIZES WITH DEGREES OF PRECISION[1]

Tolerated Error	Confidence limits	
	95 Samples in 100	99 Samples in 100
1%	9,604	16,587
2%	2,401	4,147
3%	1,067	1,843
4%	600	1,037
5%	384	663
6%	267	461
7%	196	339

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[1] See Backstrom, C. H. and Hursh, G. D., Survey Research. Minneapolis: Northwest University Press, 1963, p. 33.

5. ILLUSTRATIVE STUDENT GOVERNMENT OPINIONNAIRE

Directions:
1. Do not indicate your name or office on this questionnaire.
2. You may list any number of concerns or problems under each item. You may also skip any items on which you have not perceived a concern or problem.
3. State your perceptions as clearly and as simply as you can.
4. You may report positive factors as well as concerns or problems you have perceived in your association (over the past year) with the student government.
5. Place the completed form in the mail box of the Assistant Superintendent for Research and Planning.
6. If you need more space, please write on the back of the page or, if desired, use and attach another sheet of paper to the form.

---

1. List those items proposed and discussed at student government meetings (or brought to you in your role with the student government) which you perceive as being concerns or problems of our students.

2. Rank the items listed above according to their priority among the students by placing a 1 in front of the highest priority of concern, a 2 for second priority of concern, etc..

3. List any items which were of concern in prior years but have been corrected this year.

4. What suggestions for changes or new activities do you and your group feel may assist in solving student problems or correcting student concerns?

APPENDIX C

1. List of Sources for National Opinion Input

2. Sample Survey Form for Requesting Order of a Data Source From Monthly Sources of National Opinion

1. LIST OF SOURCES OF NATIONAL OPINION INPUT

A. Periodicals

1. AMERICAN EDUCATION

American Education
Superintendent of Documents
United States Government Printing Office
Washington, D. C. 20402

Sponsored by the Department of Health, Education and Welfare (HEW)

Provides an overview of all aspects of American education.
Features include: Federal Funds, Citizen Power, Statistics of the Month, Recent Publications, Research Report

*Monthly, $4.50

2. AMERICAN SCHOOL BOARD JOURNAL

The American School Board Journal
1233 Central Street
Evanston, Illinois 60201

Focuses on the actions and interests of the American school board.

Features include: Washington Report, Washington Trends

Monthly, $5.00

3. EDUCATION

The Bobbs-Merrill Company, Inc.
Indianapolis, Indiana

Reflects national opinion on education; contains special columns, miscellaneous articles and book reviews

Quarterly, $5.50

Microfilms available:

University Microfilms, Inc.
300 North Zeeb Road
Ann Arbor, Michigan 48106

*Indicates time published and annual price respectively.

4. EDUCATION DIGEST

Prakken Publications, Inc.
416 Longshore Drive
Ann Arbor, Michigan

Reflects contents of national opinion regarding educational concerns from other periodicals, also includes timely references from books regarding school and society

Monthly, $5.00

5. EDUCATION NEWS

Magazines for Industry, Inc.
777 Third Avenue
New York, New York 10017

National in scope and education in aspect
Contains pertinent graphs, articles, surveys, etc.

Weekly, $10.00

6. EDUCATION U. S. A. (and supplements)

Education U. S. A.
1201 Sixteenth Street, N.W.
Washington, D. C. 20036

National opinions on education affairs culled from distinguished heads of national publications and organizations

Microfilm available from:

University Microfilms, Inc.
300 North Zeeb Road
Ann Arbor, Michigan 48106

Weekly, $21.00

Supplements

Washington Monitor and bonus coupons for complimentary copies of special reports. For example, Frank B. Womer's article, "How Much Are Students Learning?" The supplements also inform the subscribers of seminars to be held; for example, National School Public Relations Association Seminar held July 7-11, 1969, Washington, D. C. Featured national authorities and experienced public relation practitioners as group leaders, speakers, and consultants to discuss the school public relations aspect of such "hot topics" as: citizen control, vandalism, racial issues, teacher militancy, student unrest and others.

7. EDUCATIONAL ADMINISTRATIVE ABSTRACTS

Abstracts Association, Inc.
Office of Publications
32 Washington Place
New York, New York 10003

Abstracts are national in scope: author and subject matter indexed

Monthly, $5.00

8. EDUCATIONAL ADMINISTRATION QUARTERLY

The Interstate Printers and Publishers, Inc.
19-27 North Jackson
Danville, Illinois 61832

Sponsored by the University Council for Educational Administration

Provides a sounding board for debate among professors, social scientists, graduate students, research oriented practitioners, in the field of educational administration

Three times a year, $5.00

9. EDUCATIONAL LEADERSHIP

Association for Supervision and Curriculum Development
National Education Association
1201 Sixteenth Street, N. W.
Washington, D. C. 20036

Articles in the journal deal with topics of general concern in education, such as federal involvement in education, schoolwide evolution, innovations in education, etc.

Monthly, $5.50

10. EDUCATIONAL RESOURCES INFORMATION CENTER

Publications

United States Department of Health, Education and Welfare
Office of Education
Bureau of Research
Superintendent of Documents
United States Government Printing Office
Washington, D. C. 20402

Reproductions

ERIC
Document Reproduction Service
National Cash Register Company
4936 Fairmont Avenue
Bethesda, Maryland 20014

Content: consists of resumes and indices by: subject, author, institution, accession number

Monthly, $21.00

11. HARVARD EDUCATIONAL REVIEW

Margaret K. O'Hara
Business Manager
Longfellow Hall
13 Appian Way
Cambridge, Massachusetts 02138

A journal of opinion and research in the field of education: includes articles, book reviews, conference reports, report analyses; contributions by teachers, scholars, and research workers in education and related fields.

Quarterly, $8.00

12. IT STARTS IN THE CLASSROOM

National School Public Relations Association
Department of NEA
1201 Sixteenth Street, N. W.
Washington, D. C. 20036

Educational articles reflect national opinion that can be applicable to the local needs of the teacher.

Monthly, $4.00

13. JOURNAL OF SECONDARY EDUCATION

Journal of Secondary Education
Suite A
1550 Rollins Road
Burlingame, California 94010

Focuses on all aspects of secondary education in California, indicating Western trends of national opinion

Monthly, $5.00

14. NATIONAL ASSOCIATION OF ELEMENTARY SCHOOL PRINCIPALS

The Association
1201 Sixteenth Street, N. W.
Washington, D. C. 20036

Educational aspects are national in scope, subject and administrative oriented

Monthly, $15.00

15. NATIONAL ASSOCIATION OF SECONDARY SCHOOL PRINCIPALS

The Association
1201 Sixteenth Street, N. W.
Washington, D. C. 20036

Educational aspects are national in scope, subject and administrative oriented

Monthly, $15.00

16. NATIONAL EDUCATION ASSOCIATION JOURNAL or TODAY'S EDUCATION

National Education Association of the United States
1201 Sixteenth Street, N. W.
Washington, D. C. 20036

Focuses on all aspects of national education
Features include: Bookshelf, NEA Publications, Teacher Opinion-Poll, Unfinished Story, Local Association of the Month, Classroom Incident

Monthly, $2.00

17. NATIONAL EDUCATION RESEARCH BULLETIN

Research Division, NEA
1201 Sixteenth Street, N. W.
Washington, D. C. 20036

Includes research reports focusing on national trends

Quarterly, $2.00

18. NATION'S SCHOOLS

Nation's Schools
Circulation Department
1050 Merchandise Mart
Chicago, Illinois 60654

Features include: Reports from Washington, Opinion Poll, News Briefs, School Law, Plant Operation, School of the Month, AV Management

Monthly, $12.00

19. NATIONAL SOCIETY FOR THE STUDY OF EDUCATION

University of Chicago Press
5750 Ellis Avenue
Chicago, Illinois

Focuses on a particular area national in scope with supplementary articles

Monthly, $5.50

20. NEW YORK STATE EDUCATION

New York State Teachers Association
152 Washington Avenue
Albany, New York 12210

An overview of educational concern in New York State
Features include: articles, book reviews, legislative action

Monthly, $2.00

21. PHI DELTA KAPPAN

Director of Administrative Services
Phi Delta Kappan
8th Street and Union Avenue
Bloomington, Indiana 47401

Compiles and publishes articles which are basically designed for the advancement of thinking in the fields of educational research, service, and leadership

Features include: Research Notes, Washington Report

Monthly, $5.00

22. PROJECTS TO ADVANCE CREATIVITY IN EDUCATION (PACE)

Publications

Superintendent of Documents
United States Government Printing Office
Washington, D. C. 20402

2. SAMPLE SURVEY FORM FOR REQUESTING THE ORDER OF A DATA SOURCE FROM MONTHLY SOURCES OF NATIONAL OPINION

NAME OF PERIODICAL______________________________

**NAME AND ADDRESS
OF PUBLISHER** ______________________________

____

____

____

PRICE OF PUBLICATION______________________________

REASONS WHY REQUESTED______________________________

____

____

____

____

____

DATE REQUESTED______________________________

SIGNATURE______________________________

APPENDIX D

Forms and Worksheets

SCHOOL DISTRICT NAME

Form 1 County/District Population Analysis

Date____

Person Completing________________________________

Instructions:

1. Obtain population figures for the county and school district for the current and past five years.
2. Determine yearly increase or decrease in county and district population.
3. Compute percentage of county population residing in the school district for current and past five years.

Previous Years	County		District		District Population Divided by County Population
	Population	Yearly Increase(+) or Decrease(-)	Population	Yearly Increase(+) or Decrease(-)	
19__	______	______	______	______	______%
19__	______	______	______	______	______%
19__	______	______	______	______	______%
19__	______	______	______	______	______%
19__	______	______	______	______	______%
Current	______	______	______	______	______%

SCHOOL DISTRICT NAME

Form 2 Models I, II, and III Projections

Date________________________ ________________________

Subject

Person Completing________________________ ________________________

Instructions:

1. Obtain yearly figures for past ten years and place in Historical Data column below.
2. Determine increase or decrease from year-to-year for past ten years.
3. Select three years in which change was the greatest -- Model I.
4. Determine ten-year standard change -- Model II.
5. Select three years in which change was the least or greatest decrease -- Model III.

Year	School Year	Type of Historical Data (e.g. State Aid/WADA; Resident Population): ________________________ ________________________	Yearly increase(+) or decrease(-) (Subtract CY-9 from CY-10; CY-8 from CY-9; etc.)
CY-10	19__-__	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -
CY-9	19__-__	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -
CY-8	19__-__	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -
CY-7	19__-__	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -
CY-6	19__-__	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -
CY-5	19__-__	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -
CY-4	19__-__	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -
CY-3	19__-__	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -
CY-2	19__-__	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -
CY-1	19__-__	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -
Current Year	19__-__	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -
		Total Net Increase or Decrease:	- - - - - - - - - - -

Form 2 (continued)

Models I, II, and III Projections

Model I - Maximum Change

Select any three years above which showed the greatest year-to-year increase, sum, and divide by three to obtain maximum change.

School Year	Yearly Change
19__ - __	________
19__ - __	________
19__ - __	________
3-year total	________
3-year average	________

Model II - Standard Change

Find total net increase or decrease above and divide by 10 to obtain standard change.

School Year	Yearly Change
19__ - __	________
19__ - __	________
19__ - __	________
19__ - __	________
19__ - __	________
19__ - __	________
19__ - __	________
19__ - __	________
19__ - __	________
19__ - __	________
10-year total	________
10-year average	________

Model III - Minimum Change

Select any three years above which showed the least increase or the greatest decrease, sum and divide by three to obtain the minimum change.

School Year	Yearly Change
19__ - __	________
19__ - __	________
19__ - __	________
3-year total	________
3-year average	________

SCHOOL DISTRICT NAME

Form 3

Resident Population Forecast

Date____

Person Completing________________________________

Instructions:

1. Obtain from Form #1, the maximum, standard, and minimum changes (Models I, II, and III) in the resident population.
2. Indicate which model will be used and the rationale.
3. Add the change to the current year's population to obtain the forecast for the budget year.
4. Add the change to the budget year's forecast to obtain the forecast for YL. Repeat through Y5.
5. Determine changes as a result of migration, birth rates and death rates.
6. Compute total population.

Model I__________ Model II__________ Model III__________

Model selected and rationale:

Year	Population Forecast	Increase(+) or decrease(-) as a result of			Total Population Forecast
		Migration	Birth Rate	Death Rate	
Current					
Budget					
Y1					
Y2					
Y3					
Y4					
Y5					

SCHOOL DISTRICT NAME

Form 4

Forecast of Population Characteristics

Date____

Person Completing__________________________________

Instructions:

1. Obtain population forecast from Form 3.
2. Determine percentage of population that is male; female; white; non-white; and age-group characteristics by using current population numbers.
3. Multiply percentages times total population to obtain population characteristics.

Year	Total Population Forecast (From Form 3)	Number of Males	Number of Females	Age of Population				Racial Characteristics	
				0-19	20-40	41-60	Over 60	White	Non-white
19__ Current	---------	---	----	--	---	---	--	----	-----
19__ Budget	---------	---	----	--	---	---	--	----	-----
19__ Y1	---------	---	----	--	---	---	--	----	-----
19__ Y2	---------	---	----	--	---	---	--	----	-----
19__ Y3	---------	---	----	--	---	---	--	----	-----
19__ Y4	---------	---	----	--	---	---	--	----	-----
19__ Y5	---------	---	----	--	---	---	--	----	-----
	Percentages used	---	----	--	---	---	--	----	-----

SCHOOL DISTRICT NAME

Form 5

Resident Income Forecast

Date____

Person Completing________________________________

Instructions:

1. Determine average resident income 10 years previous to current year.
2. Determine average resident income for current year.
3. Determine average yearly change in resident income for past 10 years.
4. Add average yearly change in income to current year's average resident income to obtain income level forecast for the budget year.
5. Add the average yearly change in income to the budget year forecast to obtain the estimated income level for Y1. Repeat through Y5.

Year	Estimated Per Resident Income
19__ 10 Years Previous	___________
19__ Current	___________
19__ Budget	___________
19__ Y1	___________
19__ Y2	___________
19__ Y3	___________
19__ Y4	___________
19__ Y5	___________

Average income change used ______________

SCHOOL DISTRICT NAME

Form 6

Forecasting District Population
Educational Level

Date____________________________________

Person Completing______________________________

Instructions:

1. Determine population educational level 10 years previous to current year
2. Determine population educational level for current year.
3. Determine average yearly change in educational level of population.
4. Add average yearly change in educational level to current year's educational level to obtain estimated educational level for the budget year.
5. Add average yearly change in educational level to budget year's estimated educational level to obtain estimate for Y1. Repeat through Y5.

Year	Estimated Educational Level
19__ 10 Years Previous	\- - - - - - - - - - -
19__ Current	\- - - - - - - - - - -
19__ Budget	\- - - - - - - - - - -
19__ Y1	\- - - - - - - - - - -
19__ Y2	\- - - - - - - - - - -
19__ Y3	\- - - - - - - - - - -
19__ Y4	\- - - - - - - - - - -
19__ Y5	\- - - - - - - - - - -

Average change in educational level used ________________

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SCHOOL DISTRICT NAME

Form 7

Computation of School District
A. Population by pre-schoo
B. Enrollment by grade
C. Pre-school retention ra
D. Grade enrollment retent

Date____

Person Completing______________________________

Part A. Known Population by Age — Part B. Known Enrollment by Grade

Year	Under 1	1	2	3	(pre-K) 4/5	K	1	2	3	4	5	6	7	8	9	10	11
19__-__																	
19__-__																	
19__-__																	
19__-__																	
19__-__																	
19__-__																	

Part C. Pre-school Retention Ratios — Part D. Grade Enrollment Retention Ratios

Year	Under 1	1	2	3	(pre-K) 4/5	K	1	2	3	4	5	6	7	8	9	10	11
19__-__																	
19__-__																	
19__-__																	
19__-__																	
19__-__																	
19__-__																	
Ave. Ret. Ratio																	

SCHOOL DISTRICT NAME

Computation of School District Retention Ratios
A. Population by pre-school age group
B. Enrollment by grade
C. Pre-school retention ratios
D. Grade enrollment retention ratios

y Age

Part B. Known Enrollment by Grade

(pre-K) 4/5	K	1	2	3	4	5	6	7	8	9	10	11	12	Total

on Ratios

Part D. Grade Enrollment Retention Ratios

(pre-K) 4/5	K	1	2	3	4	5	6	7	8	9	10	11	12	Total

Form 8

SCHOOL DISTRICT NAME

Pre-School Population Forecas
Enrollment Forecast by Grade

Date________________________________

Person Completing________________________________

	Part A. Projection by Age					Part B. Projection by Grade											
Year	Under 1	1	2	3	(pre-K) 4/5	K	1	2	3	4	5	6	7	8	9	10	11
19__-__																	
19__-__																	
19__-__																	
19__-__																	
19__-__																	
19__-__																	
Predictive Ratio Per Cent																	

Assumptions:

1. Residential construction
2. In-migration
3. Under-one-year-old population
4. Status of local economy
5. Other:

SCHOOL DISTRICT NAME

Pre-School Population Forecast by Age Group and Enrollment Forecast by Grade

Part B. Projection by Grade

1	2	3	4	5	6	7	8	9	10	11	12	Total

SCHOOL DISTRICT NAME

Form 9

Male/Female Characteristics of Enrollment Forecast

Date____

Person Completing__________________________________

Instructions:

1. Indicate percentages of school enrollment that are male/female.
2. Multiply percentage times enrollment forecast (from Form 8) to obtain male/female enrollment.

Year	MALE		FEMALE	
	%	Enrollment	%	Enrollment
19__ Current	____	______	____	______
19__ Budget	____	______	____	______
19__ Y1	____	______	____	______
19__ Y2	____	______	____	______
19__ Y3	____	______	____	______
19__ Y4	____	______	____	______
19__ Y5	____	______	____	______

SCHOOL DISTRICT NAME

Form 10

Enrollment Forecast by Age

Date____

Person Completing_________________________________

Instructions:

1. Convert grade enrollment forecast (from Form 8) to age forecast (e.g. kindergarten = 5 years old; 1st grade = 6 years old).

	AGE												
Year	5	6	7	8	9	10	11	12	13	14	15	16	17
19__ Current	____	____	____	____	____	____	____	____	____	____	____	____	____
19__ Budget	____	____	____	____	____	____	____	____	____	____	____	____	____
19__ Y1	____	____	____	____	____	____	____	____	____	____	____	____	____
19__ Y2	____	____	____	____	____	____	____	____	____	____	____	____	____
19__ Y3	____	____	____	____	____	____	____	____	____	____	____	____	____
19__ Y4	____	____	____	____	____	____	____	____	____	____	____	____	____
19__ Y5	____	____	____	____	____	____	____	____	____	____	____	____	____

SCHOOL DISTRICT NAME

Form 11

Comparison of School District Resident
and School Enrollment Population
by Race

Date____________________________________

Person Completing____________________________

Instructions:

1. Compute percentage white/non-white for the resident and school district population for past five years.

2. Estimate population and enrollment racial characteristics through Y5 (cross reference to Form 9).

Year	Resident Population		Total School Enrollment	
	% White	% Non-white	% White	% Non-white
19__ Y-5				
19__ Y-4				
19__ Y-3				
19__ Y-2				
19__ Y-1				
19__ Current				
19__ Budget				
19__ Y 1				
19__ Y 2				
19__ Y 3				
19__ Y 4				
19__ Y 5				

SCHOOL DISTRICT NAME

Form 12 State and Federal Aid 5-year Revenue Forecast

Date______________________________

Person Completing______________________________

Instructions:

1. Obtain from worksheet #1, the maximum, standard, and minimum changes (Models I, II, and III) in State and Federal Aid per WADA[1].
2. Indicate which model will be used and the rationale.
3. Add the change to current year's aid per WADA to obtain the forecast for the budget year.
4. Add the change to the budget year's forecast to obtain the forecast for Y1. Repeat through Y5.
5. Obtain the estimated WADA for the next five years.
6. Multiply the aid per WADA times the estimated WADA to obtain the estimated aid revenue.

State Aid/WADA:

Model I $__________

Model II $__________

Model III $__________

Model selected and rationale:

Federal Aid/WADA:

Model I $__________

Model II $__________

Model III $__________

Model selected and rationale:

Year	Aid Per WADA	Estimated WADA	Estimated Revenue (Aid per WADA x Estimated WADA)
State Aid:			
Current 19__-__			
Budget 19__-__			
Y1 19__-__			
Y2 19__-__			
Y3 19__-__			
Y4 19__-__			
Y5 19__-__			
Federal Aid:			
Current 19__-__			
Budget 19__-__			
Y1 19__-__			
Y2 19__-__			
Y3 19__-__			
Y4 19__-__			
Y5 19__-__			

---

[1] WADA - weighted average daily attendance

SCHOOL DISTRICT NAME

Form 13 County Sales Tax Revenue

Date______________________________

Person Completing______________________________

Instructions:

1. Estimate county and school district Average Daily Attendance (ADA).
2. Compute district portion of ADA. (District ADA divided by County ADA)
3. Estimate county sales tax revenue.
4. Multiply district portion times county sales tax to obtain district revenue from sales tax.

I. Forecast of Average Daily Attendance (ADA)

Year	ADA County		ADA District		District Portion
19__ Current	________	÷	________	=	________
19__ Budget	________	÷	________	=	________
19__ Y1	________	÷	________	=	________
19__ Y2	________	÷	________	=	________
19__ Y3	________	÷	________	=	________
19__ Y4	________	÷	________	=	________
19__ Y5	________	÷	________	=	________

II. Sales Tax Revenue

Year	County Sales Tax		District Portion		District Revenue
19__ Current	$________	X	________	=	$________
19__ Budget	$________	X	________	=	$________
19__ Y1	$________	X	________	=	$________
19__ Y2	$________	X	________	=	$________
19__ Y3	$________	X	________	=	$________
19__ Y4	$________	X	________	=	$________
19__ Y5	$________	X	________	=	$________

SCHOOL DISTRICT NAME

Form 14

Real Property Full Valuation and
Full Property Valuation Tax Rate

Date____

Person Completing________________________________

Tax District___________________________________

Instructions:

1. Obtain from Form #1, the maximum, standard, and minimum changes (Models I, II, and III) in the District's Total Real Property Full Valuation and the District's Full Valuation Tax Rate.
2. Indicate which model will be used and why.
3. Add the change to the current year's Full Valuation and the Full Valuation Tax Rate to obtain the forecast for the budget year.
4. Add the change to the budget year's forecast to obtain the forecast for Y1. Repeat through Y5.

Full Property Valuation:	Full Property Valuation Tax Rate:
Model I $________	Model I $________
Model II $________	Model II $________
Model III $________	Model III $________
Model selected and rationale:	Model selected and rationale:

Year	Full Valuation	Full Valuation Tax Rate per $1000
Current 19__-__	$ ____________	$ ____________
Budget 19__-__	$ ____________	$ ____________
Y1 19__-__	$ ____________	$ ____________
Y2 19__-__	$ ____________	$ ____________
Y3 19__-__	$ ____________	$ ____________
Y4 19__-__	$ ____________	$ ____________
Y5 19__-__	$ ____________	$ ____________

SCHOOL DISTRICT NAME

Form 15

Real Property Full Valuation Forecast (Summary)

Date____________________

Person Completing____________________

Instructions:

1. Obtain Real Property Full Valuation Forecast for each taxing district from Form 14.
2. Sum for each year to obtain the total Real Property Full Valuation Forecast.

Taxing District	Projected Real Property Full Valuation - From Form 14						
	19__ Current Yr.	19__ Budget Yr.	19__ Y1	19__ Y2	19__ Y3	19__ Y4	19__ Y5
________	$________	$________	$________	$________	$________	$________	$________
________	$________	$________	$________	$________	$________	$________	$________
________	$________	$________	$________	$________	$________	$________	$________
________	$________	$________	$________	$________	$________	$________	$________
Totals	$________	$________	$________	$________	$________	$________	$________

SCHOOL DISTRICT NAME

Form 16

Estimated Revenue From
Real Property Tax

Date____

Person Completing________________________________

Instructions:

1. Obtain District's Estimated Full Valuation from Form 15.
2. Obtain District's Estimated Full Valuation Tax Rate from Form 14.
3. Determine District's Equalization Rate.
4. Multiply the Full Valuation times the Full Valuation Tax Rate times the Equalization Rate to obtain the Estimated Revenue from Real Property Tax.

Year	Estimated Full Valuation (From Form 15)		Estimated Full Valuation Tax Rate (From Form 14)		Equalization Rate		Estimated Property Tax Revenue
19__ Current	$________	x	$________	x	_____	=	$________
19__ Budget	$________	x	$________	x	_____	=	$________
19__ Y1	$________	x	$________	x	_____	=	$________
19__ Y2	$________	x	$________	x	_____	=	$________
19__ Y3	$________	x	$________	x	_____	=	$________
19__ Y4	$________	x	$________	x	_____	=	$________
19__ Y5	$________	x	$________	x	_____	=	$________

SCHOOL DISTRICT NAME

Form 17

Revenue Forecasts (Summary)

Date________________________________

Person Completing________________________________

Year	Federal Aid (From Form 12)	State Aid (From Form 12)	Sales Tax (From Form 13)	Real Property Tax (From Form 16)	Other Revenue	Total
19__ Current	$________	$________	$________	$________	$________	$________
19__ Budget	$________	$________	$________	$________	$________	$________
19__ Y1	$________	$________	$________	$________	$________	$________
19__ Y2	$________	$________	$________	$________	$________	$________
19__ Y3	$________	$________	$________	$________	$________	$________
19__ Y4	$________	$________	$________	$________	$________	$________
19__ Y5	$________	$________	$________	$________	$________	$________

SCHOOL DISTRICT NAME

Form 18

Building Capacity and Square Feet of Building Space Per Pupil

Date____

Person Completing________________________________

Instructions:

1. Obtain information concerning grades, capacity, enrollment and square feet in each school building.
2. Divide enrollment per building into square feet per building to determine the square footage per pupil per building.
3. Compute the total capacity, enrollment, and square footage for the district.
4. Divide the total district enrollment into the total square footage to determine square footage per pupil.
5. Project square footage per pupil by dividing estimated enrollment into building space available.

Building	Grades Housed in Bldg.	Capacity	Enrollment	Sq. Feet in Bldg.	Sq. Feet Per Pupil Enrolled
	TOTAL				

Projection

Year	Estimated District Enrollment	Total Building Space Available in District	Estimated Per Pupil Square Footage
19__ Current			
19__ Budget			
19__ Y1			
19__ Y2			
19__ Y3			
19__ Y4			
19__ Y5			

Minimum square feet per pupil adopted by Board of Education __________

SCHOOL DISTRICT NAME

Form 19 Capital Outlay and Debt Service

Date____

Person Completing________________________________

Instructions:

1. Compute principal and interest payments on current debt.
2. Combine principal and interest payments to obtain total payments.

Year	Principal Payment	Interest Payments	Total
19__ Current	\$________	\$________	\$________
19__ Budget	\$________	\$________	\$________
19__ Y1	\$________	\$________	\$________
19__ Y2	\$________	\$________	\$________
19__ Y3	\$________	\$________	\$________
19__ Y4	\$________	\$________	\$________
19__ Y5	\$________	\$________	\$________

SCHOOL DISTRICT NAME

Form 20

1. OBJECTIVES AND MEASURES

A. Multi-Year Objectives:	B. Measures of Effectiveness:

195 A

SCHOOL DISTRICT NAME

___ Summary
___ Memorandum

B. Measures of Effectiveness:

Form 20 (Continued)

2. EXPERIENCES AND ACHIEVEMENT

A. Objective Number	B. Experiences:	C. Progress Toward Achievement:

___ Summary
___ Memorandum

	C. Progress Toward Achievement:

Form 20 (Continued)

3. ALTERNATIVE EXPERIENCES AND SELECTION RATIONALE

A. Objective Number	B. Alternative Experience Considered:	C. Reason Not Chosen for Implementation:

___ Summary
___ Memorandum

TION RATIONALE

ence Considered:	C. Reason Not Chosen for Implementation:

Form 20 (Continued)

___ Summary
___ Memorandum

4. MULTI-YEAR RECOMMENDATIONS:

DOCUMENT IN PROGRAM TERMS - BUDGET YEAR INCREASES

199 A

NS/UNCERTAINTIES

___ Summary
___ Memorandum

	B. Assumptions:	C. Uncertainties:

Form 20 (Continued)

5. EVIDENCE/ASSUMPTIONS/UNCERTAINTIES

A. Data Sources:	B. Assumptions:	C. Uncertainties:

Form 20 (Continued)

NOTE: This sect
if Progra
being cons

6. DECISIONS AND RECOMMENDATIONS FOR FURTHER STUDY

A. Major Program Issue Decisions:	B. ISAS Recommendations:

RTHER STUDY

NOTE: This section completed only if Program Memorandum is being constructed.

B. ISAS Recommendations:

SCHOOL DISTRICT NAME

Form 21

QUANTITY AND COST OF

Date______________________________________ Program Element________________________

Person Completing__________________________________

Instructions:
1. List quantity of resources required each year.
2. Convert resource quantities into costs for each year.
3. Add the total costs of all categories for each year (vertically) to determine Program Element costs.

Resource Category[1]	Number of Items and Cost by Year											
	Current		Budget		Year 1		Year 2		Year 3		Year 4	
	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
PERSONNEL												
Administrators												
Teachers												
Teacher Aides												
Consultant												
Maintenance												
Clerical												
Total Cost of PERSONNEL												
EQUIPMENT												
Desks												
Chairs												
Movie Projectors												
Tape Recorders												
TV Sets												
Other												
Total Cost of EQUIPMENT												

---

[1] Items listed below are illustrative only.

(Continued

SCHOOL DISTRICT NAME

QUANTITY AND COST OF RESOURCES REQUIRED

Program Element____

rces required each year.
ities into costs for each year.
all categories for each year (vertically) to determine Program Element costs.

Number of Items and Cost by Year													
Current		Budget		Year 1		Year 2		Year 3		Year 4		Year 5	
Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost

ative only.

(Continued next page)

Form 21 (Page 2)

QUANTITY AND COST OF RES

Date__________ Program Element__________

Person Completing__________

Resource Category	Number of Items and Cost by Year											
	Current		Budget		Year 1		Year 2		Year 3		Year 4	
	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
SUPPLIES												
Books												
Paper												
Other												
Total Cost of SUPPLIES												
OTHER												
Transportation												
Training Materials												
Building Space												
Total Cost of OTHER												
TOTAL COST OF RESOURCES												

QUANTITY AND COST OF RESOURCES REQUIRED

Program Element____

Number of Items and Cost by Year												
ent	Budget		Year 1		Year 2		Year 3		Year 4		Year 5	
Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost

SCHOOL DISTRICT NAME

Form 22

Program Element
Interim Appraisal

Date____

Person Completing______________________________

Program Element________________________________

Instructions:

1. Indicate the effectiveness of the support services by placing an "X" in the appropriate column.
2. Explain in the comments section any appraisal scores which fall in columns 2 or 3.

Items	Appraisal Score		
	Presently Sufficient 1	**Need for Change** 2	Great Need for Change 3
Audio-Visual Equipment	-----	-----	-----
Classroom Supplies	-----	-----	-----
Inservice Education	-----	-----	-----
Instructional Supplies	-----	-----	-----
Instructional Support Services	-----	-----	-----
Office Supplies	-----	-----	-----
Operational Support Services	-----	-----	-----
Physical Facilities	-----	-----	-----
Staff Allocation	-----	-----	-----
Student Grouping	-----	-----	-----
Time Allocation	-----	-----	-----
Other:			
____________________	-----	-----	-----
____________________	-----	-----	-----
____________________	-----	-----	-----
____________________	-----	-----	-----

Comments: **(Place additional comments on back)**

SCHOOL DISTRICT NAME

Form 23

PROGRAM COSTS (Adjus

Date________________________________ Program________________________

Person Completing______________________________

Instructions:

1. Obtain resource costs by summing Program Element Costs within Program (See Forms 21).
2. Obtain and list below inflation indices to be used.
3. Multiply resource costs (obtained in Step 1 above) times inflation factor.
4. Add inflated costs for each year (vertically) to obtain inflated Program Costs.

Inflation indices used:

Resource Category[1]	Inflated Costs by Year					
	Current	Budget	Year 1	Year 2	Year 3	Year 4
	Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cos
PERSONNEL						
Administrators						
Teachers						
Teacher Aides						
Consultant						
Maintenance						
Clerical						
Total Cost of PERSONNEL						
EQUIPMENT						
Desks						
Chairs						
Movie Projectors						
Tape Recorders						
TV Sets						
Other						
Total Cost of EQUIPMENT						

---

[1] Items listed below are illustrative only

(Continue

SCHOOL DISTRICT NAME

PROGRAM COSTS (Adjusted for Inflation)

Program

y summing Program Element Costs within Program (See Forms 21).
nflation indices to be used.
(obtained in Step 1 above) times inflation factor.
each year (vertically) to obtain inflated Program Costs.

Inflated Costs by Year						
Current	Budget	Year 1	Year 2	Year 3	Year 4	Year 5
flated Cost	Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cost

ve only

(Continued next page)

Form 23 (Page 2)

PROGRAM COSTS (Adjuste

Date____________________ Program____________________

Person Completing____________________

Resource Category	Inflated Costs by Year					
	Current	Budget	Year 1	Year 2	Year 3	Year 4
	Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cost
SUPPLIES						
Books						
Paper						
Other						
Total Cost of SUPPLIES						
OTHER						
Transportation						
Training Materials						
Building Space						
Total Cost of OTHER						
TOTAL COST OF RESOURCES						

PROGRAM COSTS (Adjusted for Inflation)

Program

Inflated Costs by Year						
Current	Budget	Year 1	Year 2	Year 3	Year 4	Year 5
Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cost	Inflated Cost

SCHOOL DISTRICT NAME

Form 24

ESTIMATED REVENUE AND EXPENDITURE REPORT

Date________________________________

Person Completing____________________ Time period__________ to __________

Instructions:

1. Obtain proposed program expenditures from each Program Memorandum.
2. Indicate what federal and state aid monies are applicable to particular programs.
3. Determine amount to be raised locally.

Item	Programs							Total District
	"A"	"B"	"C"	"D"	"E"	"F"	"N"	
Proposed Expenditure	----	----	----	----	----	----	----	-------
Applicable Federal Aid	----	----	----	----	----	----	----	-------
Applicable State Aid	----	----	----	----	----	----	----	-------
Local Support Necessary	----	----	----	----	----	----	----	-------
Local Tax Rate								-------

SCHOOL DISTRICT NAME

Form 24a

PROGRAM CATEGORY BUDGET SUMMARY

Date____

Person Completing____________________________

Programs	Actual Last Year	Planned This Year	Projected					
			Next Year Budget	Year 1	Year 2	Year 3	Year 4	Year 5
Policy, Coordination & Control								
Legislative								
Executive								
Community								
Personnel Services								
Instructional								
Elem School A								
Junior High A								
Senior High A								
Special Educ.								
Cont. Education								
Operational Support								
Facilities								
Oper. Support Administration								
Plant Operation								
Food Services								
Pupil Trans.								
Business Serv.								
Instructional Support								
Inst. Support Administration								
Curriculum Dev.								
Health Services								
Pupil Pers. Serv.								
Learning Research								
TOTAL	$____	$______	$________	$___	$___	$___	$___	$___
Incr. Dollar Change		$______	$________	$___	$___	$___	$___	$___
Incr. Per Cent Change		_____%	____%	__%	__%	__%	__%	__%

*PROGRAM STATISTICS: Policy, Coordination and Control

Enrollment								
Cost Per Pupil								
**Staff:								
Professional								
Support								

* A summary is prepared for all four major program categories.

** The appropriate staff designation is used for each program category.

SCHOOL DISTRICT NAME

Form 24a (Page 2)

PROGRAM BUDGET SUMMARY

Date____

Person Completing__________________________________

	Actual Last Year	Planned This Year	Projected					
			Next Year Budget	Year 1	Year 2	Year 3	Year 4	Year 5
Program: High School A								
Program Element								
Art								
Business								
Foreign Language								
Health, Safety & Physical Educ.								
Industrial Arts								
Language Arts								
Mathematics								
Music								
Science								
Social Studies								
Vocational Studies								
Extra Curricular								
Adm. & Supervision								
Operational Serv.								
TOTAL	$___	$___	$___	$___	$___	$___	$___	$___
Incr. Dollar Change		$___	$___	$___	$___	$___	$___	$___
Incr. Per Cent Change		___%	___%	___%	___%	___%	___%	___%

*PROGRAM STATISTICS (For each program)

Enrollment								
Cost per Pupil								
**Staff:								
Professional								
Support								

* A summary is prepared for each program.
** The appropriate staff designation is used for each program.

SCHOOL DISTRICT NAME

Form 24a (Page 3) PROGRAM ELEMENT BUDGET SUMMARY

Date____

Person Completing______________________________

Program Element	Actual Last Year	Planned This Year	Projected					
			Next Year Budget	Year 1	Year 2	Year 3	Year 4	Year 5
Salaries								
Supplies								
Equipment								
Contractual								
Other								
TOTAL	\$___	\$___	\$___	\$___	\$___	\$___	\$___	\$___
Incr. Dollar Change		\$___	\$___	\$___	\$___	\$___	\$___	\$___
Incr. Per Cent Change		___%	___%	___%	___%	___%	___%	___%

***PROGRAM STATISTICS:** (for each program element)

Enrollment								
Cost per pupil								
**Staff:								
Professional								
Support								

* A summary is prepared for each program element.

** The appropriate staff designation is used for each program element category.

SCHOOL DISTRICT NAME

Form 25

Date ____________________ for ____________________

Program Element, Program, D

Person Completing ____________________

Time period __________ to ______

Instructions:

1. Complete this form for each program, program element and the district.
2. Combine this form with curricular data. (See Procedure No. 30)

Expenditure Category[1]	Cost by Year					
	Current Year	Budget Year	Year 1	Year 2	Year 3	Year 4
PERSONNEL						
Administrators						
Teachers						
Teacher Aides						
Consultant						
Maintenance						
Clerical						
Other						
Subtotal						
EQUIPMENT						
Desks						
Chairs						
Movie Projectors						
Tape Recorders						
TV Sets						
Other						
Subtotal						

---

[1] Illustrative only

(Contin

SCHOOL DISTRICT NAME

PROGRAM BUDGET

for ______________________
Program Element, Program, District

Time period ______________ to ______________

h program, program element and the district.
ricular data. (See Procedure No. 30)

		Cost by Year				
ent Year	Budget Year	Year 1	Year 2	Year 3	Year 4	Year 5

(Continued next page)

Form 25 (Page 2) P

Date____________________ for ____________________

Program Element, Program, District

Person Completing____________________

Time period__________ to __________

Expenditure Category	Cost by Year					
	Current Year	Budget Year	Year 1	Year 2	Year 3	Year 4
SUPPLIES						
Books						
Paper						
Other						
Subtotal						
OTHER						
Transportation						
Training Materials						
Subtotal						
TOTAL						

PROGRAM BUDGET

for ______________________
Program Element, Program, District

Time period______________ to ______________

	Cost by Year					
nt Year	Budget Year	Year 1	Year 2	Year 3	Year 4	Year 5

SCHOOL DISTRICT NAME

Form 26 PROGRAM CATEGORY EXPENDITURE REPORT

Date____

Person Completing______________________________

Program Category	Budget	Month to-Date	Year to-Date	Per Cent Expended	Encum-bered	Unencum-bered Balance
Policy, Coordination & Control						
Legislative						
Executive						
Community						
Personnel Services						
Instructional						
Elementary School A						
Junior High School A						
Senior High School A						
Special Education						
Continuing Education						
Operational Support						
Facilities						
Operational Support Administration						
Plant Operation						
Food Services						
Pupil Transportation						
Business Services						
Instructional Support						
Instructional Support Administration						
Curriculum Development						
Health Services						
Pupil Pers. Services						
Learning Research						
TOTAL	$____	$____	$____	$____	$____	$____

SCHOOL DISTRICT NAME

Form 26a

PROGRAM EXPENDITURE REPORT

Date________________________ for ______________________
Program

Person Completing____________________ Inclusive Dates __________ to __________

Instructions:

1. **Complete this form for each program.**
2. **Record comments to explain progress to date.**
3. **Send to chief school officer.**

Program[1]	Budgeted Amount	Expended and/or Encumbered to Date	Unencumbered Balance
High School A	________	________	________
High School B	________	________	________
Elementary School A	________	________	________
Elementary School B	________	________	________
Business Services	________	________	________
Guidance Services	________	________	________

Comments:

---

[1] **Illustrative only**

SCHOOL DISTRICT NAME

Form 26b

PROGRAM ELEMENT EXPENDITURE REPORT

Date ____________________________

For ____________________ Program Element

Person Completing ____________________________

Inclusive Dates __________ to __________

Instructions:

1. Complete this form for each program element.
2. Program element coordinators are to review this report and record their comments on this form.
3. Send copy of this report to respective program director.

Expenditure Category[1]	Budgeted Amount	Expended and/or Encumbered to Date	Unencumbered Balance
PERSONNEL			
Administrators			
Teachers			
Teacher Aides			
Consultant			
Maintenance			
Clerical			
Other			
Subtotal			
EQUIPMENT			
Desks			
Chairs			
Movie Projectors			
Tape Recorders			
TV Sets			
Other			
Subtotal			
SUPPLIES			
Books			
Paper			
Other			
Subtotal			

(Continued next page)

---

[1] Illustrative only

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SCHOOL DISTRICT NAME

Form 26b - Page 2 PROGRAM ELEMENT EXPENDITURE REPORT

Date____________________ for _

Program Element

Person Completing__________________ Inclusive Dates ________ to ________

Expenditure Category	Budgeted Amount	Expended and/or Encumbered to Date	Unencumbered Balance
OTHER			
Transportation			
Training Materials			
Subtotal			
TOTAL			

Comments:

SCHOOL DISTRICT NAME

Form 27 **EFFECTIVENESS AND EXPENDITURE REPORT**

Date ______________________________

Person Completing ______________________________

Program Element or Program ______________________________

Instructions:

1. Complete the five following statements for your Program Element or Program.
2. Attach an appropriate copy of the past year's Program Element Summary or Program Memorandum (Form 20).
3. Attach an Expenditure Report (appropriate Form 26).

---

1. Indicate what activities (if any) were changed from the planned activities for the past year.

2. List the objectives, the measures of effectiveness used, and the achievement during the past year.

3. List the strong aspects of the Program Element or Program.

4. List the areas in need of improvement.

5. List the things that are now being done to improve the Program Element or Program.

SCHOOL DISTRICT NAME

Form 28

SUGGESTED OUTLINE OF SUMMARY OF
PROPOSED INSTRUCTIONAL SYSTEMS
ANALYTICAL STUDY

Date____

Person Completing__________________________ Program_________________

---

1. Major areas of program deficiency:
2. Area selected for cost-effectiveness study:
3. Reasons why this area was selected over other program element areas reviewed:
4. School district needs unsatisfied by areas of deficiency within suggested program element:
5. Target population of proposed system:
   other populations affected by proposed system:
6. Desired outcomes of proposed system:
7. Data required to conduct study:
8. Data available:
9. Plan to acquire remaining data:
10. Constraints on conduct of study and on operation of proposed system:
11. Other school district programs likely to be affected by operation of the proposed system:
12. Plan for involving representatives of those programs in the study:
13. Estimated cost of conducting the study:
    a. Personnel required:
    b. Other costs:
14. Estimated time necessary to complete the study:
15. Possible benefits to the district from the conduct of this particular ISAS:

SCHOOL DISTRICT NAME

Form 29

SUMMARY DESCRIPTION OF ALTERN

ISAS Title and ID Number:______________________________

ISAS Director:______________________________

Narrative Description - Alternative A B C D __	Subprogram Element Area:	Presentation Mode	Performance Criteria	Mea

SCHOOL DISTRICT NAME

SUMMARY DESCRIPTION OF ALTERNATIVE SYSTEMS

rnative A B C D __	Subprogram Element Area:	Presentation Mode	Performance Criteria	Measured by:

SCHOOL DISTRICT NAME

Form 30

ESTIMATED EFFECTIVENESS
OF ALTERNATIVES

ISAS Title and Identification Number:______________________________

______________________________ Year: 1 2 3 4 5
(Circle appropriate year)

Panel Member's Name:______________________________

Subprogram Element:______________________________

EFFECTIVENESS VARIABLE	VALUE SCALE	ALTERNATIVES						
		A	B	C	D	E	F	G
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

SCHOOL DISTRICT NAME

Form 30a

WEIGHTED EFFECTIVENESS
SCORE OF ALTERNATIVE

ISAS Title and Identification Number: ______________________________

______________________________ Year: 1 2 3 4 5
(Circle appropriate year)

ISAS Director: ______________________________ Date: ______________

Subprogram Element: ______________________________

EFFECTIVENESS VARIABLE	WEIGHT	AVERAGE VALUES (each alternative)	ALTERNATIVES						
			A	B	C	D	E	F	G
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									

WEIGHTED EFFECTIVENESS SCORE =							
	A	B	C	D	E	F	G

SCHOOL DISTRICT NAME

Form 31

QUANTITY OF RESOURCES REQUIRED
BY COST CATEGORY

Date____________________________________

Person Completing__________________________

ISAS Number____________, __________________________Program

Alternative System A (or B or C).

Category[1]	Number of Items by Year[2]				
	Year 1	Year 2	Year 3	Year 4	Year 5
PERSONNEL					
Administrators					
Teachers					
Teacher Aides					
Consultant					
Maintenance					
Clerical					
EQUIPMENT					
Desks					
Chairs					
Movie Projectors					
Tape Recorders					
TV Sets					
Other					
SUPPLIES					
Books					
Paper					
Other					
OTHER					
Transportation					
Training					
Building Space					

[1] Items listed below are illustrative only.

[2] Include only those items which are additional. Numbers of years from Step 2, Procedure No. 6.

SCHOOL DISTRICT NAME

Form 32

COSTS OF RESOURCES
BY COST CATEGORY

Date____

Person Completing________________________________

ISAS Study Number______________, ____________________________ Program
Alternative System A (or B or C).

Category	Cost of Items by Year[1]				
	Year 1	Year 2	Year 3	Year 4	Year 5
PERSONNEL					
Administrators					
Teachers					
Teacher Aides					
Consultants					
Maintenance					
EQUIPMENT					
Desks					
Chairs					
Movie Projectors					
Tape Recorders					
TV Sets					
SUPPLIES					
Books					
Paper					
OTHER					
Transportation					
Training					
TOTAL					

---

[1] Cost of resources by alternative as reported on Form 31.

SCHOOL DISTRICT NAME

Form 33

SUMMARY OF COSTS FOR EACH ALTERNATIVE SYSTEM

Date____

Person Completing________________________________

ISAS Study Number__________, __________________________ Program

System	Costs					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Alternative A						
Alternative B						
Alternative C						

SCHOOL DISTRICT NAME

Form 33a

SUMMARY OF BENEFITS FOR
EACH ALTERNATIVE SYSTEM

Date____

Person Completing____

ISAS Study Number__________, ______________________________Program

System	Benefits					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Alternative A						
Alternative B						
Alternative C						

SCHOOL DISTRICT NAME

Form 34

SUMMARY OF COSTS AND BENEFITS

Date____

Person Completing______________________________

ISAS Study Number__________, ____________________________ Program

---

Instructions:

1. Indicate the Instructional Systems Analytical Study Number (ISAS) and Program.
2. Obtain benefits for each alternative system from Form 33a.
3. Obtain total cost figures for each alternative from Form 33.

System	Year 1		Year 2		Year 3		Year 4		Year 5		Total	
	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit
Alternative A												
Alternative B												
Alternative C												

SCHOOL DISTRICT NAME

ISAS PROCEDURE 36:
Identifying Appropriate Program Element for Conducting an Instructional Systems Analytical Study

WORKSHEET A
Completed by
PROGRAM COMMITTEE

Program Element Title: ______________________________

Program Element Coordinator: ______________________________

	Great (4)	Moderate (3)	Small (2)	None (1)	Score
1. Consistency of Program Element objectives (Item 1) with District priorities.					
2. Impact of Program Element as indicated by measure of effectiveness (Item 2).					
3. Current effectiveness of Program Element as indicated by description of current activities (Item 3).					
4. Program Element progress toward objectives to date (Item 4).					
5. Anticipated impact of expected multi-year results of Program Element (Item 5).					
6. Feasibility of Program Element alternatives considered for planning purposes (Item 6).					
7. Validity of rationale for selecting Program Element alternative implemented (Item 7).					
8. Validity of data available for decision making and multi-year Program Element planning (Item 8).					
9. Certainty of decision making and Program Element planning.					
10. Validity of assumptions basic to Program Element decisions.					
	TOTAL SCORE				

SCHOOL DISTRICT NAME

ISAS PROCEDURE 36:
Identifying Appropriate Program Element for Conducting an Instructional Systems Analytical Study

REVIEW CHECKLIST
FOR FORM 28

Review performed by:
☐ Program Committee
☐ Program Director
☐ Educational Planning Council

Item	Criteria	Acceptable	Must Revise	Suggested Revisions
1	Population, deficient performance, and performance areas identified.			
2	Specific location for ISAS recommended is consistent with Item 1.			
3	Reasons listed substantiate Item 2.			
4	Relationship of specific deficiency to District priorities clearly described.			
5	Description of target population sufficiently specific and limiting.			
6	Desired outcomes reasonable, consistent with District priorities.			
7	All categories of needed data specified.			
8	All available data listed.			
9	Acquisition of unavailable required data provided for.			
10	All potential constraints listed.			
11	All other District/school programs possibly affected listed; secondary populations sufficiently described.			

REVIEW CHECKLIST FOR FORM 28 (Continued)

Item	Criteria	Acceptable	Must Revise	Suggested Revisions
12	Plan to involve representatives of affected programs sufficiently comprehensive			
13	Personnel cost breakdown complete and accurate.			
	Other cost breakdown complete and accurate.			
14	Time estimate reasonable, within available manpower and budget constraints.			
15	All benefits clearly related to District needs/priorities; all possible benefits listed.			

Comments/Revisions ____________________

____

____

INSTRUCTIONS TO REVIEWER

IF YOU ARE A -	AND IF -	THEN -
Program Committee	You have suggested revisions to Form 28.	**Return Form 28 and this checklist to the Program Element Coordinator who originated the Form 28.**
	There are no revisions suggested.	**Forward Form 28 and this checklist to the appropriate Program Director.**
Program Director	You have suggested revisions to Form 28.	**Return Form 28 and this checklist to the Program Element Coordinator.**
	There are no revisions suggested.	**Forward to the Educational Planning Council.**
Educational Planning Council	You approve Form 28.	**Inform the appropriate Program Director to continue the ISAS.**
	You disapprove Form 28.	**Inform the appropriate Program Director to either resubmit at a later date or continue the ISAS as possible at the program element level.**

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SCHOOL DISTRICT NAME

ISAS TASK FORCE WORK-FLOW SCHEDULE

WORKSHEET B
ISAS DIRECTOR

1. Program Element under study: ______________________________
____

2. Task Force Personnel:

ISAS Director: ______________________________

Program Director: ______________________________

______________________ ______________________
______________________ ______________________
______________________ ______________________
______________________ ______________________

3. Date ISAS begun: ______________ Date ISAS to be completed: __________

4.

TASKS	ROLES	DATES			NOTES/ CONTINGENCIES
		START	TARGET	ACTUAL	
Form 28 reviewed	ISAS Director				
Obtain input data for subprogram element objectives	ISAS Director				
Summarize input data	ISAS Director				
Review input data summary	ISAS Task Force				
Draft subprogram element objectives	ISAS Task Force				
Review subprogram element objectives	Program Director				
Determine present level of performance	Prog. Element Coordinator				
Estimate difficulty of achievement	ISAS Task Force				
Generate alternative Program Element Systems	ISAS Task Force				
Construct Form 29	ISAS Director				
Review Form 29	ISAS Task Force				

WORKSHEET B
Continuation

TASKS	ROLES	DATES			NOTES/ CONTINGENCIES
		START	TARGET	ACTUAL	
Establish effectiveness variables; weight effectiveness variables.	ISAS Task Force				
Construct Form 30 for each alternative system	Panel of Experts				
Construct summary Form 30a	ISAS Director				
Review Form 29	ISAS Director				
Plan cost projection for each alternative	ISAS Director				
Construct Form 31 for each alternative	ISAS Director				
Review Form 31's	ISAS Task Force				
Construct Form 32 for each alternative	School Bus. Administrator				
Construct Form 33 for each alternative	School Bus. Administrator				
Construct Form 34	ISAS Director				
Construct C/E graphs	ISAS Director				
Select Program Element alternative to be implemented	ISAS Task Force				
Review alternative selected	Program Director				
Review alternative selected	Educational Plan. Council				

ISAS Work-Flow Schedule approved:______________________________
Program Director

Date______________________________

SCHOOL DISTRICT NAME

DATA SUMMARY WORKSHEET
Procedure No. 38

ISAS Title and Number:_______________________________

ISAS Director:_______________________________ Date:_______________

Subprogram Element Area (SPEA)		Current Levels of Achievement	Relevant Demographic Data	Usable Community Res
Number	Title			

SCHOOL DISTRICT NAME

WORKSHEET C
ISAS DIRECTOR

Date:____________________

Current Levels of Achievement	Relevant Demographic Data	Usable Community Resources

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SCHOOL DISTRICT NAME

DATA SUMMARY WORKSHEET (Page 2)
Procedure No. 38

ISAS Title and Number:____

ISAS Director:____ Date:____________________

SPEA Number	Current Staff Competency	District Philosophy Relevant to Subprogram Element Area	Relevant Portions of Learning Theory S

SCHOOL DISTRICT NAME

WORKSHEET C
ISAS DIRECTOR

____

______________________________ Date: ______________________________

	District Philosophy Relevant to Subprogram Element Area	Relevant Portions of District Learning Theory Statement

SCHOOL DISTRICT NAME

SUBPROGRAM ELEMENT/AREA OBJECTIVES
REVIEW CHECKLIST

WORKSHEET D
PROGRAM DIRECTOR

Upon receiving the final statement of Subprogram Element Objectives from the ISAS Task Force, review them against the criteria outlined below.

ISAS Title and Identification Number: ____________________

General Criteria:	Yes	No
1. Are all deficient Subprogram Elements listed as categories in the statement of objectives?	☐	☐
2. Have Subprogram Element Objectives been written for each Subprogram Element?	☐	☐
3. Is each objective identified as cognitive, affective, or psycho-motor?	☐	☐
4. Have Subprogram Element/Area Objectives been written for each Subprogram Element Area?	☐	☐
Specific Criteria:		
1. Do the Subprogram Element/Area Objectives for each area of deficiency specify the target population?	☐	☐
2. Does each objective specify the desired criterion performance in precise, measurable terms?	☐	☐
3. Does each objective state all necessary givens for criterion performance and describe the conditions of performance?	☐	☐
4. Does each objective specify precise performance criteria?	☐	☐
5. Do the Subprogram Element Objectives for each area of deficiency clearly state performance limits?	☐	☐

- FOR ALL ITEMS RATED "NO" - describe revisions required in a separate memo and return it with the statement of objectives to the ISAS Task Force.

- IF NO REVISIONS ARE REQUIRED - sign below and forward this checklist and the statement of objectives to the ISAS Director.

Subprogram Element Objectives approved: ____________________
Program Director

Date ____________________

SCHOOL DISTRICT NAME

IDENTIFYING CURRENT COMPETENCE OF
TARGET POPULATION IN ALL PROGRAM
ELEMENT AREAS UNDER STUDY

WORKSHEET E
PROGRAM ELEMENT
COORDINATOR

ISAS Title and Identification Number:______________________________

Program Element Coordinator:__________________________________

TARGET POPULATION: Describe the intended population for the Program Element. Refer to Form 28 - Item 5:

____

____

____

Subprogram Element/Areas	Present Competence	Evidence
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	

Program Element Coordinator: ______________________________

TARGET POPULATION: Describe the intended population for the Program Element. Refer to Form 28 - Item 5:

____

____

____

Subprogram Element/Areas	Present Competence	Evidence
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	

SCHOOL DISTRICT NAME

ALTERNATIVE SEQUENCES OF OBJECTIVES

ISAS Title and Identification Number:____

1 Subprogram Element/Areas	2 Present Competence	3 Estimated Difficulty	4 Competes with --	5 Basic and Facilitating	6 Frequency	7 Interest

SCHOOL DISTRICT NAME

S

WORKSHEET F

er:____

2 Present Competence	3 Estimated Difficulty	4 Competes with --	5 Basic and Facilitating	6 Frequency	7 Interest	8 Optimum Sequence

SCHOOL DISTRICT NAME

ASSIGNING WEIGHTS TO THE EFFECTIVENESS VARIABLES

ISAS Title and ID Number:______________________________

ISAS Director:____

	10	9	8	7	6	5	4	3	2	1
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

EFFECTIVENESS VARIABLE	TIMES SELECTED	ZERO ADJUSTM
1		(plus 1
2		(plus 1
3		(plus 1
4		(plus 1
5		(plus 1
6		(plus 1
7		(plus 1
8		(plus 1
9		(plus 1
10		(plus 1
—		(plus 1
—		(plus 1
—		(plus 1

UPON COMPLETION, WORKSHEET G BECOMES INPUT FOR THE
DIRECTOR IN COMPUTING EFFECTIVENESS SCORES GENERAT
A PANEL OF EXPERTS.

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SCHOOL DISTRICT NAME

CTIVENESS VARIABLES

WORKSHEET G

6	5	4	3	2	1

EFFECTIVENESS VARIABLE	TIMES SELECTED	ZERO ADJUSTMENT	WEIGHT
1		(plus 1) =	
2		(plus 1) =	
3		(plus 1) =	
4		(plus 1) =	
5		(plus 1) =	
6		(plus 1) =	
7		(plus 1) =	
8		(plus 1) =	
9		(plus 1) =	
10		(plus 1) =	
—		(plus 1) =	
—		(plus 1) =	
—		(plus 1) =	

UPON COMPLETION, WORKSHEET G BECOMES INPUT FOR THE ISAS DIRECTOR IN COMPUTING EFFECTIVENESS SCORES GENERATED BY A PANEL OF EXPERTS.

APPENDIX E

Publications are listed alphabetically by title or publication with the exception of federally published documents.

All federally published documents may be obtained by writing to:

Superintendent of Documents
United States Government Printing Office
Washington, D. C. 20402

Ask for publication by title and department.

Business Factbook - New York State:
New York State Department of Commerce
112 State Street
Albany, New York 12207

Demographic Projections for New York State Counties to 2020 A.D.:
Office of Planning Coordination
488 Broadway
Albany, New York 12207

New York State Annual Education Summary:
University of the State of New York
State Education Department
Bureau of Statistics
Albany, New York 12224

New York State Statistical Yearbook; Statistical Reporter:
New York State Division of the Budget
Office of Statistical Coordination
State Capital
Albany, New York 12224

New York State Taxpayer:
100 State Street
Albany, New York 12207

Structure of Earnings and Hours in New York State:
New York State Department of Labor
State Office Building (Campus)
Albany, New York 12226

Survey of Future Housing Demands:
Erie County Department of Planning
Erie County Library
Lafayette Square
Buffalo, New York 14202

Tract Facts for the Buffalo Area:
Community Welfare Council of Buffalo and Erie County
Genesee Building
Buffalo, New York 14202

Vital Statistics (local birth-death rate):
Erie County Health Department
Bureau of Bio Statistics
City Hall Building
Buffalo, New York 14202

APPENDIX F

ANNOTATED LIST OF THE SOURCES OF REVENUE DATA

AMERICAN SOCIETY OF PLANNING OFFICIALS: This organization provides service on a national basis in regard to the types of planning going on throughout the United States on regional basis, in cities, and in school districts. School district officials may obtain from them the results of many studies and projects regarding long and short range planning.

AUDIT AND CONTROL ACCOUNTS FOR LOCAL SCHOOL DISTRICTS: By checking these accounts the school district officials will be able to see their actual revenues and expenditures for the preceding year. This will be a great help in preparing the budget for the next year.

BASIC EDUCATIONAL DATA SYSTEMS: The State Education Department's Data Bank contains information on financial matters and other educational topics that may be of use to school district officials.

BUILDERS ASSOCIATION -- LOCAL: This association should be contacted to see if any new construction is planned in the school district. It may also be able to give information in regard to the labor relations situation in the area (anticipated strikes, or anticipated wage increases), and also if additional employees will be needed to complete the jobs in the area. These factors may affect the school district's tax base and budget.

CHAMBER OF COMMERCE: The Chamber of Commerce should be contacted to see if any businesses contemplate moving into or out of the school district. This would have a definite impact on the school district. The Chamber also provides information through its development foundations and subcommittees.

CONSUMER PRICE INDEX: This index should be checked to determine the trend of the annual rate in living costs. It is not a cost-of-living index per se, but does show the effect of price changes on the ability and willingness of the people in the district to approve educational budgets.

COUNTY BOARD OF SUPERVISORS: This board will be able to give school district officials information in regard to anticipated and actual revenue from the county sales tax (if any). It will also have information about the per cent of the sales tax revenues that will go towards supporting education in the county (if any).

CURRENT LITERATURE: School district officials should read such magazines and newspapers as the New York Times, NEA Journal, NYSTA Journal, Kiplinger Magazine, School Business Management News, School Management, Education Journal, local newspapers, etc., to keep up with current trends and policies in education according to leading educators and laymen.

DEMOGRAPHIC SPECIALISTS OR CONSULTANTS: These people may be of help in determining the population and make-up of the school district. They also may be able to determine whether there has been in or out migration from the school district. They will also be of help in determining the potential revenue of the school district and of help in determining the tax base.

EDUCATIONAL RESOURCES INFORMATION CENTER: School district officials should be aware that a monthly abstract journal announcing recently completed research and research-related reports and current research projects in the field of education is available to them. It is published by the U. S. Department of Health, Education and Welfare - Office of Education, Bureau of Research. This is a nationwide information network for acquiring, selecting, abstracting, sorting, retrieving, and disseminating the most significant and timely educational research reports and projects.

FINANCIAL EXPERTS: These experts may be able to offer assistance in budgeting and financial projection that will help school district officials determine their revenue and expenditures. These experts may be found in universities and in local industries and banks. School officials may also want to check with a municipal consulting service.

LOCAL INDUSTRIES: Local industries should be contacted in regard to plant expansion, plant closings, employee increases or decreases, labor relations, anticipated wage increases, possible strikes, etc.. This information could be of value to the school district's officials in regard to designing the school district's budget.

LOCAL LEGISLATORS (STATE AND LOCAL): These representatives should be contacted for information in regard to increases or decreases in state and federal aid to school districts, also for some insight into the probability of the total educational budgets being approved. They may also have information on special educational projects that may be of special interest to the schools of the district.

NATIONAL INDUSTRIAL CONFERENCE BOARD: This is a research organization financed by a number of large U. S. industries whose purpose is the publication of objective data on pertinent demographic and economic problems. The formats called "Road Maps of Industry" are mailed regularly to a wide spectrum of decisionmakers and educators who request them.

NEWSLETTERS -- LOCAL, STATE AND NATIONAL: Organizations and agencies such as the State Association for School Board Members and the New York State Taxpayers Association, and USOE, publish newsletters periodically that will be of use to school district officials in keeping their fingers on the pulse of various interest groups throughout the state and nation.

NEW YORK STATE BUREAU OF EQUALIZATION AND ASSESSMENT: This bureau collects data on the market values of property on a state-wide basis. Using modern sampling techniques, it determines with considerable accuracy the extent to which property as a whole, or a specific type of property is being underassessed. Once the degree of deviation from the state norm is determined for each district, adjustment can be made to offset the deviation. This process is referred to as "equalization."

NEW YORK STATE ASSOCIATION OF SCHOOL BUSINESS OFFICIALS: This association provides literature, conferences, and meetings concerning school finances which are useful to school district officials. Local chapters and the national association provide an additional source of information that school officials can use when working with revenue data.

NEW YORK STATE EDUCATIONAL CONFERENCE BOARD: This board is one of the most powerful lobby groups in New York State. It is comprised of representatives of NYSTA, School Administrators Association, School Boards Association, PTA, etc.. It should be consulted in regard to the demands for new education laws and budget appropriations that are being sought from legislature.

PUBLIC EMPLOYMENT RELATIONS BOARD: The publications of this board should be examined for new changes and interpretations in the laws that affect public employees in New York State. These changes could affect the salaries and fringe benefits that school districts are paying to their employees.

PLANNING COMMISSION OR BOARD -- COUNTY: This board may be of assistance in regard to the long-range plans of the school district. Most counties have long-range plans and by seeing these, a school district may gain insight into its future planning and development.

PLANNING COMMISSION OR BOARD -- TOWN OR MUNICIPALITY: This board may be of value to the school district officials because it has information in regard to building permits issued, and zoning or ordinances that may affect the school's tax base. It also may have a master plan for the community that will be of assistance to the school district in its long-range planning.

REGIONAL EDUCATIONAL CENTERS: School districts should be aware that the Elementary and Secondary Act of 1965, Title III, provides for grants for supplementary educational centers and services, to stimulate and assist in the provision of vitally needed educational centers and services not available in sufficient quantity or quality, and to stimulate and assist in the development and establishment of exemplary elementary and secondary school educational programs to serve as models for regular school programs. These regional centers assist in preparing proposals for federal educational grants, work to meet the manpower needs of the school region, and help in publicizing the work of significant projects in the area.

SCHOOL STUDY OR DEVELOPMENT COUNCILS: Often times school districts within an area organize to improve education in the area. These councils offer training and do studies in school finance, metropolitan sharing, and other types of in-service training. School district officials should be aware of these types of educational organizations and possibly take advantage of their workshops and subscribe to their reports and studies.

SPECIAL CENSUS OF THE U. S. DEPARTMENT OF COMMERCE: This census will give figures in regard to inflation and rising consumer prices as well as increases in building costs, increases in salaries of workers in many industries. These could be of importance to school district officials in figuring the cost of new additions and repairs of the school's buildings.

SPECIAL PUBLICATIONS: Publications are available to school district officials from teachers associations, NEA, NYSTA, New York State Association of Secondary School Administrators.

STATE DEPARTMENT OF EDUCATION: This department sends out information and memoranda that will affect the decisions made by school district officials. Much of this information deals with state aid that is of extreme importance to school districts in making up their budgets: for example, School Financial Aid Bulletin, School Facilities Planning and Management News, School Business Management Handbook.

STATE OFFICE OF PLANNING COORDINATION: This office has information in regard to the state's master plan for the region of the state in which the school is located. This information can be of assistance in the school's long-range planning in regard to school consolidation, along with other types of governmental consolidation throughout the state, proposed highways, recreational areas, etc..

TAX ASSESSORS: These officials should be consulted regularly in regard to the types of construction going on in the school district. They will also be able to give information about the district's Assessed Valuation and True Valuation of its property. This is very important as property taxes are still one of the school district's major sources of revenue.

APPENDIX G

GLOSSARY

Account Class: a descriptive heading or numeric code used to categorize similar financial transactions according to program, function, object, or source; contained in a chart of accounts.

Alternatives: variations in approaches utilized to facilitate the accomplishment of stated objectives. Alternatives should be considered in both instructional and operational programs.

When considering alternatives in instructional programs, variations may be administrative (differences in staffing, scheduling, space availability, etc.) and/or instructional (differences in sequencing of objectives, instructional materials utilized, grouping patterns, etc.). The educational "experiences" selected for the target population in the program (or a specific part of a program) under study may be considered the alternative.

Annual Planning Calendar: phases of current organizational activities are integrated with long-range planning on scheduled annual cycles to coordinate procedures for all agencies or program centers; time schedules may be designed.

Appropriation: an allocation of funds made by a governing authority for specified purposes and often restricted as to the time when it may be expended.

Basic and Facilitating: a characteristic of subprogram element areas (or subprogram element area objectives) which determines what areas are fundamental to total performance or assist in performance in other areas.

Budget Document: a written statement of an estimate or plan describing expenditures and revenues for financing an organization's entire program for a specified time period, usually one year; the most common fiscal year begins July 1 and ends June 30; at the termination of the defined period, the budget technically no longer exists, other than as an historical document.

Budgetary Process: continuous activity including planning, formulation of a budget document, interpretation, presentation to the approving authority, formal adoption, fiscal administration, and appraisal.

Community Influential: a person that is able to mold the opinion of a large number of school district residents. The person may be pro or con education.

Competing: a characteristic of subprogram element areas (or subprogram element area objectives) which constrains learner achievement due to the similarity of topics, tasks or concepts.

Cost-Benefit Analysis: an approach to solving problems of choice which requires the definition of objectives, identification of alternative ways of achieving the objectives and identification of the alternatives that yield the greatest benefits for any given cost, or what amounts to the same thing, that yield a required or chosen amount of benefits for the least cost. The term usually applies to situations in which the alternative outputs can be quantified in dollars. A chief characteristic of cost-benefit analysis is that its aim is to calculate the present value of benefits and costs, subject to specified constraints. See also: Cost-effectiveness analysis.

Cost-Effectiveness Analysis: an approach to solving problems of choice which requires the definition of objectives, identification of alternative ways of achieving the objectives and identification of the alternatives that yield the greatest effectiveness for any given cost, or what amounts to the same thing, that yield a required or chosen degree of effectiveness for the least cost. The term is usually used in situations in which the alternative outputs cannot be easily quantified in dollars. See also: Cost-benefit analysis.

Crosswalk: the expression of the relationship between the program structure and the appropriation-budget structure; the translation of multiyear program and financial plans into annual budgets; a simple table vertically listing program categories and horizontally listing appropriations and budget activities; based upon the program budget code.

Curricular-Fiscal Plan: a detailed document of the events or activities which are proposed to accomplish given objective(s) for a definite period of time (3-5 years) including the financial costs.

Direct Costs: actual or budgetary costs that may be charged directly to, or prorated as a part of, the cost of a program, service, function, or department. They are eliminated if a program is eliminated or added if a program is added.

Effectiveness: the performance or output received from an approach or a program in relation to some standard, set of criteria, or end objective.

Effectiveness Variable: specific factors related to the successful implementation and operation of alternative instructional programs; such as, teacher competence, student acceptance, financial feasibility.

Evaluation Criteria (Measures of Effectiveness): measures (ideally, quantitative ones) which can be used to evaluate the effectiveness of a given course of action (program) over a specific time period.

Expenditure Report: a summary of the budgeted amount, expended and/or encumbered balance and the unencumbered amount for each item in the school district budget.

Feedback: the process of returning selected information about the results of an activity or a group of activities to a decisionmaker. The receipt of such information allows the decisionmaker to determine the extent to which activities are producing desired--or planned--outcomes. Such information also becomes one basis upon which future activities are planned.

Function-Object Budget: a theory and process of budgeting widely used presently by local public schools to identify costs under a number of broadly defined function and object categories, such as administration, instruction, debt service, and plant maintenance; emphasis is upon objects of expense rather than programs of the school.

Goal: A goal is a continuing purpose that provides a sense of direction through time. A goal is general in scope and may be thought of as providing a direction or an aim for school districts to work toward.

Indirect Costs: actual or budgetary costs that are not readily identified with a specific program, service, function, or department and that are seldom completely eliminated if a program is eliminated.

Long-Range Plans: guidelines for a school district that state specific objectives, alternative methods of achieving the objectives, and the financial implications of the proposed activities. The time horizon might be from three to five or more years.

Measurement: the process of assigning a numeric value to any object or event in accordance with a predetermined rule (evaluation, among other things, is the making of a value judgment about that number).

Multi-Year Financial Plan: a multi-year budget forecast based on the program structure which projects the future (usually five years) output and cost implications of current decisions and shows comparative data for the fiscal year just past, the current year, and the budget year.

Objectives: an objective is a measurable, desired result to be accomplished within a specified time period. It closes a gap between a present situation and a desired situation within a time frame, or in other words, fulfills a defined need.

Operating Budget: that part of the total budget of a school system which contains instructional and related costs; it does not include captial outlay, debt service, transportation, and other similar costs; it is defined differently from state to state.

Planning: the selection or identification of the overall, long-range objectives of the organization.

Program: a major organization endeavor which is mission oriented and which is defined in terms of the principal actions required to achieve a significant end objective.

Program Analysis: the process by which a program is investigated in order to establish what specific problems are present, what are the likely causes, what target groups are affected, what objectives are to be furthered, what alternate solutions are feasible (from a cost/effectiveness standpoint), and what are the "system" needs (kinds of data, measures of effectiveness, measures of physical output, etc.). Program analysis is the process by which individual program directors complete their fiscal and curricular planning and by which they report to Boards of Education how their programs contribute to the achievement of district-wide goals and objectives.

Program Budget: a theory and process of budgeting which relates resources, financial and otherwise, to a school district's goals, objectives, and priorities.

Program Element Summary: a report for a program element which includes the major objectives, measures of effectiveness, multi-year costs, pregress to date toward the achievement of objectives and the desired plans for the future.

Program Memoranda: documents which (a) succinctly present an organization's major program recommendations within a framework of specific objectives; and (b) summarize relevant information on objectives, effectiveness, cost of alternatives considered, and the supporting analyses. They also provide background for the development of the annual school district budget.

Program Structure: an articulated organizational pattern which facilitates the comparisons of alternative approaches. To serve this purpose, program classifications should be objective-oriented, grouping activities with common objectives or common outputs.

a. Program Categories. The first level of classification in a program structure. Includes a very broad grouping of school district activities into about four distinct functional areas; e.g., Instruction; Instructional Support; Operational Support; and Policy, Control and Coordination.

b. Programs. The second level of classification in a program structure. They should provide a framework for resolving major questions of mission and management.

c. Program Elements. Third level of classification in the program structure. Involves groups of activities directly related to the production of discrete outputs or groups of outputs.

Program elements have these characteristics: (1) they should produce clearly-definable outputs, which are quantified wherever possible; (2) wherever feasible, the output of a program element should be an agency end-product--not an intermediate product that supports another element; and (3) the inputs of a program element should vary with changes in the level of output, but not necessarily proportionally.

d. Subprogram Elements. A further division of the Program Element classification. This further division is made to facilitate the management of the objectives to be achieved. Subprogram Elements have the same characteristics as Program Elements.

e. Subprogram Element Areas. A division of Subprogram Elements into smaller units for the purpose of more closely relating specific instructional objectives to instructional activities.

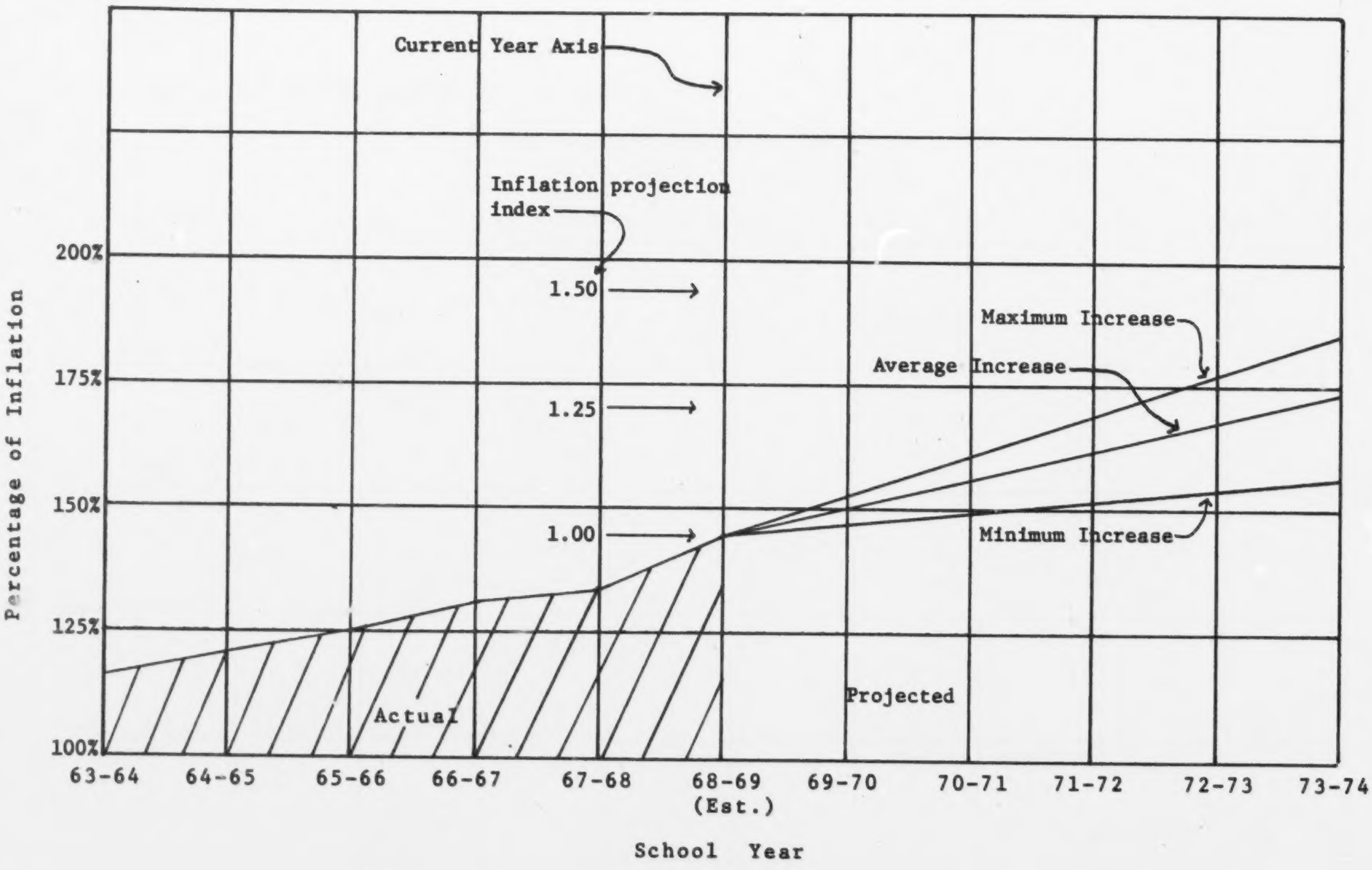
Proration of Costs: the distribution of costs to two or more program areas in proportion to the benefits provided; the basis for proration may be a formula or some other arbitrarily determined procedure.

Target Population (Clientele Group): a group within the general population toward which a program is aimed or on which it has a significant impact.

Unassigned Support: a budget category containing items that are not assigned to more direct program, service, or function-object categories; a kind of residual budgetary item.

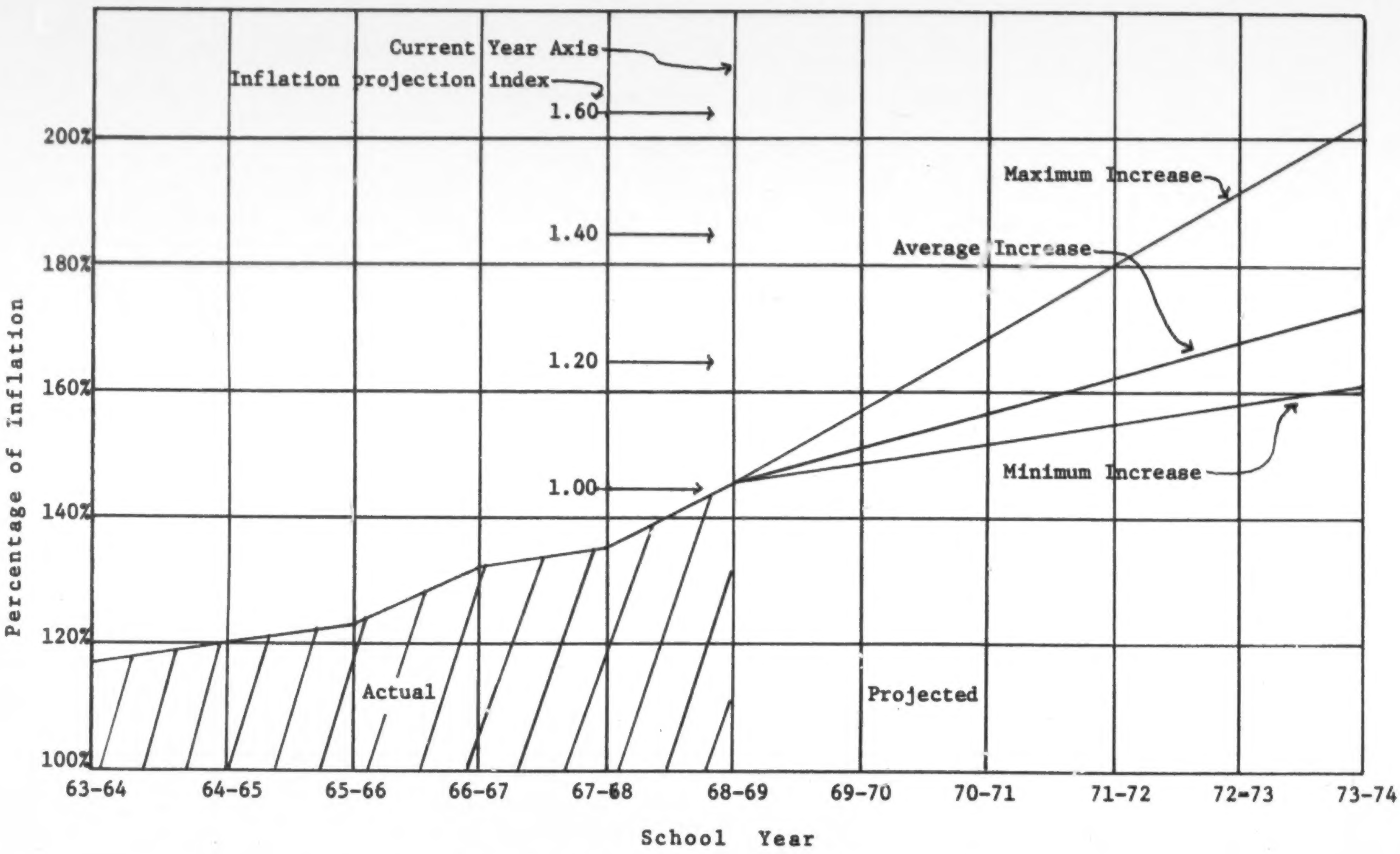
APPENDIX H

INFLATION PROJECTION CHARTS



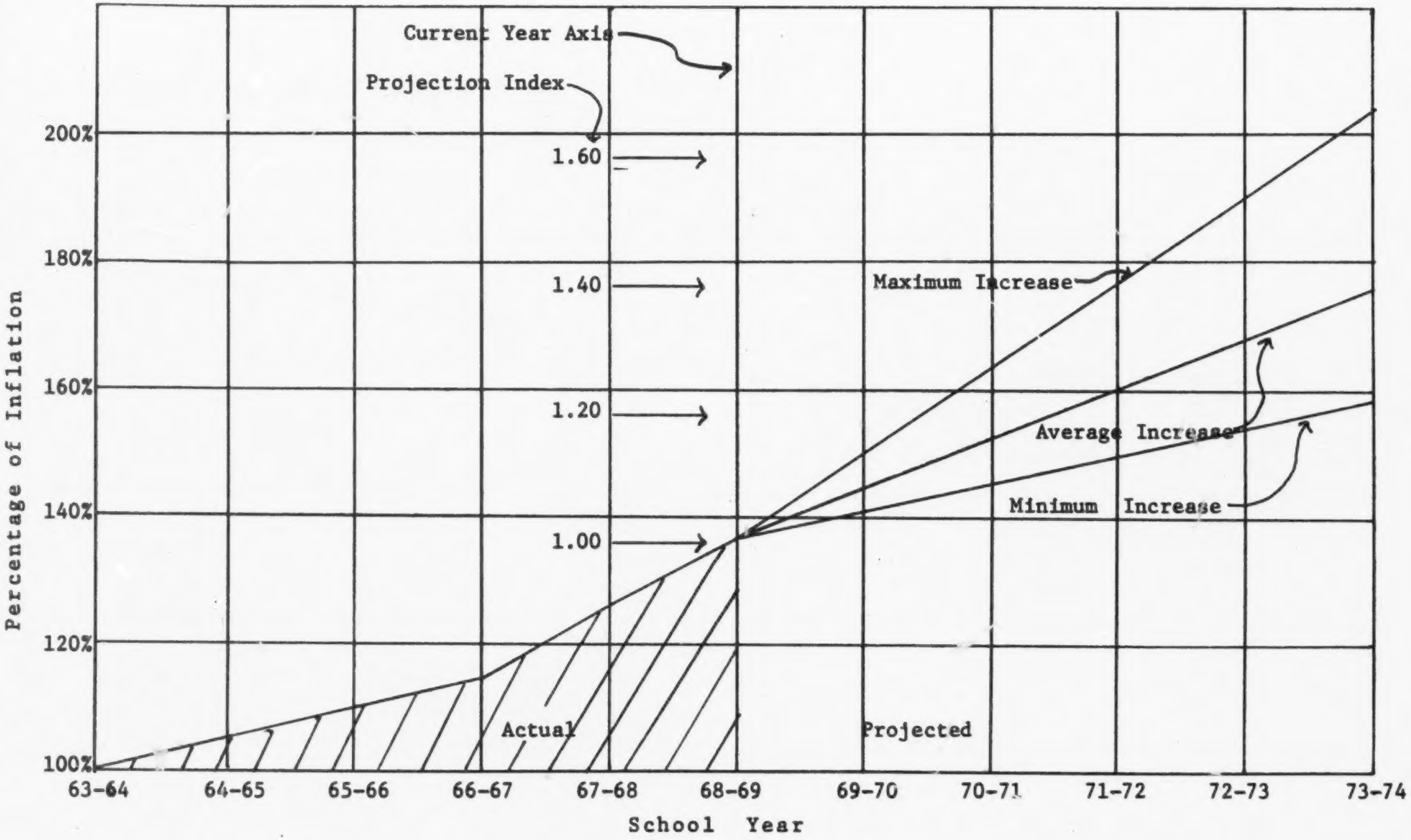
Actual and projected educational inflation

Adapted from: School Management, XIV, No. 1, p. 39.



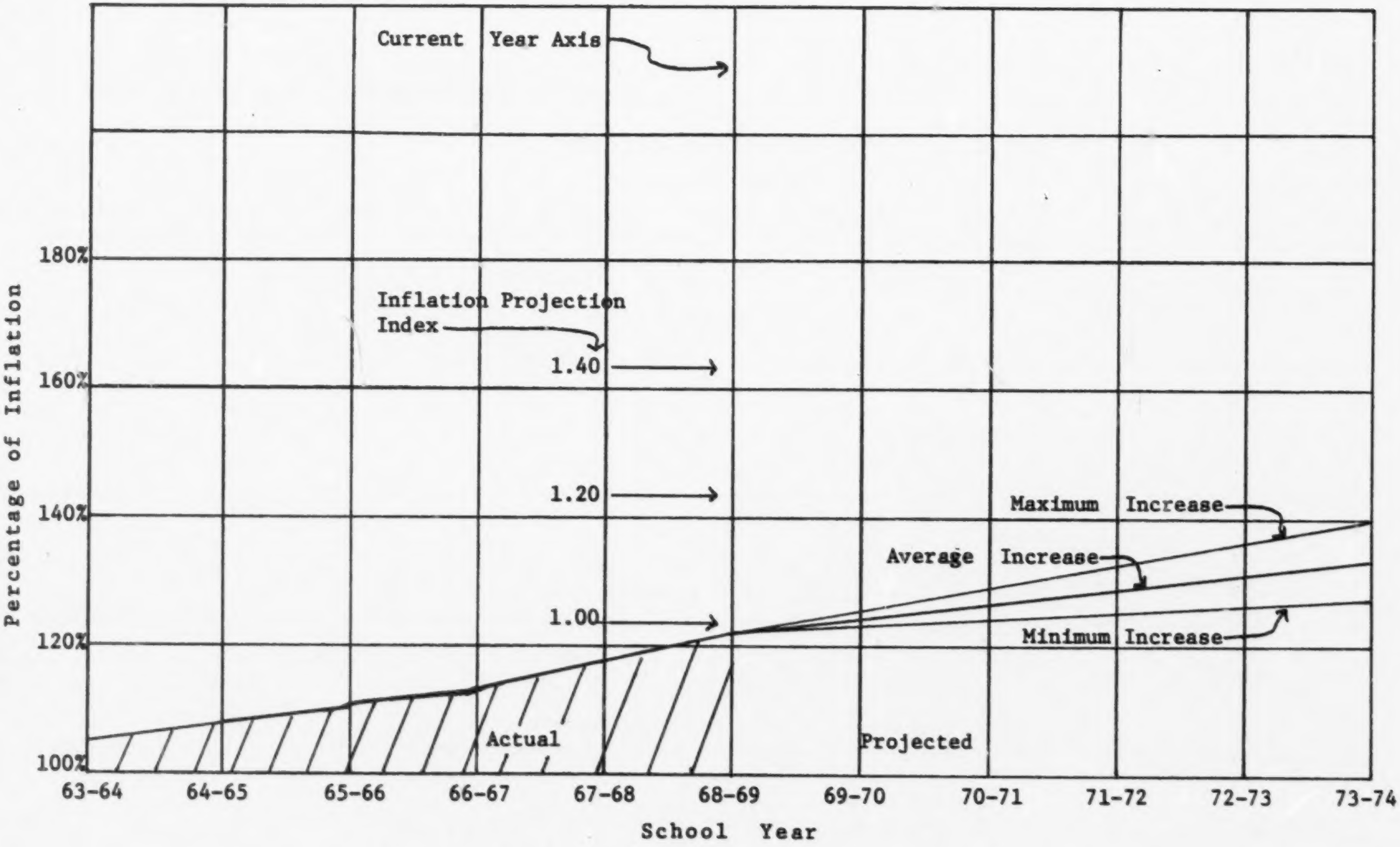
Actual and projected fixed charges inflation

Adapted from: School Management, XIV, No. 1, p. 70.



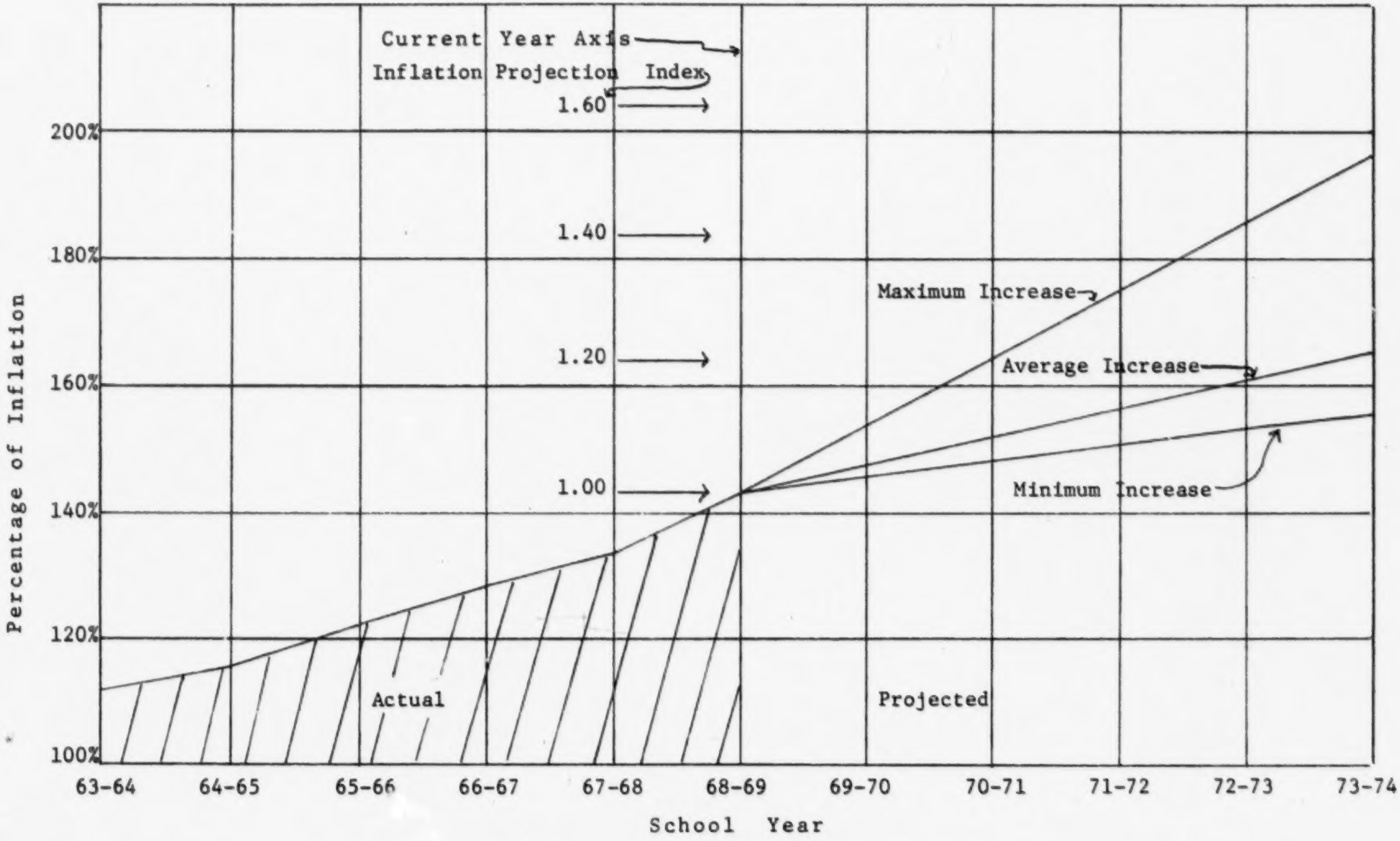
Actual and projected teacher salary costs

Data adapted from: NEA Research Bulletin, 1969.



Actual and projected teaching materials cost inflation

Adapted from: School Management, XIV, No. 1, p. 49.



Actual and projected health costs inflation

Adapted from: School Management, XIV, No. 1, p. 71.

APPENDIX I

ILLUSTRATIVE CODE DESIGN

To facilitate the line-item budget conversion into a program budget the following areas need to be identifiable by the coding system:

1) Fund - single space for a letter
2) Program Category - single digit space
3) Program - two digit spaces
4) Program Element - three digit spaces
5) Function - three digit spaces
6) Object - three digit spaces

As an example, the number A/1/03/093/138/321/ refers to the General Fund, Instruction Program Category, High School "A" Program, Business Education Program Element, Typing I Function, Books Object.

ILLUSTRATIVE
PROGRAM BUDGET OUTLINE
FOR A SCHOOL DISTRICT

I School District Philosophy

II Program Categories

A. Policy, Coordination and Control

1. Executive
    Goals
    Objectives
    Activities
    Cost $__________

2. Legislative
    Goals
    Objectives
    Activities
    Cost $__________

3. Community
    Goals
    Objectives
    Activities
    Cost $__________

Subtotal $__________

B. Instruction

1. High School
    Goalds
    Objectives
    Activities
    Cost $__________

2. Elementary School A
    Goals
    Objectives
    Activities
    Cost $__________

3. Elementary School B
    Goals
    Objectives
    Activities
    Cost $__________

II B. Instruction (continued)

4. Summer School
Goals
Objectives
Activities
Cost $__________

5. Continuing Education
Goals
Objectives
Activities
Cost $__________

Subtotal $__________

III Instructional Support

1. Guidance Services
Goals
Objectives
Activities
Cost $__________

2. Health Services
Goals
Objectives
Activities
Cost $__________

Subtotal $__________

IV Operational Support

1. Business Services
Goals
Objectives
Activities
Cost $__________

2. Transportation Services
Goals
Objectives
Activities
Cost $__________

3. Food Services
Goals
Objectives
Activities
Cost $__________

Subtotal $__________

Total Expenditures $__________

APPENDIX J

Illustrative Detailed Program Structure

PROGRAM CATEGORIES

1. Policy, Control & Coordination
2. Instructional
3. Instructional Support
4. Operational Support

PROGRAMS IN POLICY, CONTROL & COORDINATION PROGRAM CATEGORY

1. Legislative Program
2. Executive Program
3. Community Program
4. Personnel Services Program

PROGRAMS IN INSTRUCTIONAL PROGRAM CATEGORY

1. Elementary School A . . . N Program
2. Junior High School A . . . N Program
3. Senior High School A . . . N Program
4. Special Education Program
5. Continuing Education Program

PROGRAMS IN INSTRUCTIONAL SUPPORT PROGRAM CATEGORY

1. Learning Resources Program
2. Pupil Personnel Services Program
3. Health Services Program
4. Curriculum Development Program
5. Administrative Services Program (System)

PROGRAMS IN OPERATIONAL SUPPORT PROGRAM CATEGORY

1. Business Services Program
2. Pupil Transportation Program
3. Food Services Program
4. Plant Operation Program
5. Acquisition & Improvement of Facilities Program
6. Administrative Services Program

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POLICY, CONTROL & COORDINATION PROGRAM CATEGORY

- Legislative Program
    - Operational Support Program Element
    - Research and Development Program Element
    - Consultant and Special Services Program Element

- Executive Program
    - Administrative and Planning Services Program Element
    - Consultant and Professional Development Program Element
    - Operational Support Program Element

- Community Program
    - Recreational Services Program Element
    - School-Community Relations Program Element

- Personnel Services Program
    - Recruitment Services Program Element
    - Negotiations Program Element
    - Publications and Dissemination Services Program Element

INSTRUCTIONAL PROGRAM CATEGORY

- Elementary School "A" (. . . N) Program
    - Kindergarten Program Element
    - Primary Program Element*
    - Intermediate Program Element*
    - Special Subject Program Element
    - Administration and Supervision Program Element
    - Extra Curricular Services Program Element
    - Operation Services Program Element

- Junior High School "A" (. . . N) Program
    - Art Program Element
    - Business Program Element
    - Foreign Language Program Element
    - Health-Safety-Physical Education Program Element
    - Industrial Arts Program Element
    - Language Arts Program Element
    - Mathematics Program Element
    - Music Program Element
    - Science Program Element
    - Social Studies Program Element
    - Extra Curricular Services Program Element
    - Administration and Supervision Program Element
    - Operation Services Program Element

---

*Subprogram Element
    Tool Subjects Activities
    Cultural Subject Activities

INSTRUCTIONAL PROGRAM CATEGORY (continued)

- Senior High School "A" (. . . N) Program
  - Art Program Element
  - Business Program Element
  - Foreign Language Program Element
  - Health-Safety-Physical Education Program Element
  - Industrial Arts Program Element
  - Language Arts Program Element
  - Mathematics Program Element
  - Music Program Element
  - Science Program Element
  - Social Studies Program Element
  - Vocational Studies Program Element
  - Extra Curricular Services Program Element
  - Administration and Supervision Program Element
  - Operation Services Program Element

- Special Education Program
  - Emotionally Disturbed Program Element
  - Physically Handicapped Program Element
  - Mentally Handicapped Program Element
  - Corrective and Remedial Program Element
  - Home Instruction Program Element
  - Administrative and Supervision Program Element
  - Operation Services Program Element

- Continuing Educational Program
  - Adult Education Program Element
  - Summer School Program Element

INSTRUCTIONAL SUPPORT PROGRAM CATEGORY

- Learning Resources Program
  - Library Services Program Element
  - Audio-Visual Program Element

- Pupil Personnel Services Program
  - Guidance Program Element
  - Psychological Services Program Element
  - Attendance Services Program Element

- Health Services Program
  - Nursing Services Program Element
  - Dental Services Program Element
  - Medical Services Program Element

- Curriculum Development Program
  - Research and Development Program Element
  - Conferences and Professional Meetings Program Element
  - In-service Education Program Element

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INSTRUCTIONAL SUPPORT PROGRAM CATEGORY (continued)

- Administrative Services Program
  - Administration and Supervision Program Element
  - Operations Services Program Element

OPERATIONAL SUPPORT PROGRAM CATEGORY

- Business Services Program
  - Purchasing Program Element
  - Payroll Program Element
  - Accounting Program Element
  - Auditing Program Element
  - Administration and Supervision Program Element

- Pupil Transportation Program
  - Contracted Services Program Element
  - District-owned Operations Program Element

- Food Services Program
  - Cafeteria and Kitchens Program Element
  - Administration and Supervision Program Element

- Plant Operations Program
  - Custodial Services Program Element
  - Regular Maintenance Program Element
  - Preventative Maintenance Program Element

- Acquisition and Improvement of Facilities Program
  - Debt Service Program Element
  - New Construction and Remodeling Program Element

- Administrative Services Program
  - Administration and Supervision Program Element
  - Operations Services Program Element
  - In-service Education of Nonteaching Personnel Program Element

APPENDIX K

Sample Decision Rules

COST ALLOCATION DECISION RULES

Whenever school personnel are preparing a program budget or compiling an expenditure report for program activities, a question usually arises as to which activity costs should be included in the program costs. Should administrative costs be prorated to all programs? How do we determine the amount to be prorated? Specifically, should we prorate the cost of utilities to all program elements? Should we reflect fringe benefits in all salary figures? How do we allocate the cost of general supplies used for instruction in all program elements? Since the program costs reflect such allocation decisions, care should be taken to show costs to the appropriate programs and program elements. A log book should be maintained of the allocation decisions that have been made for future reference and review.

In general, all costs should be shown which effect a particular program or program element. For example, science equipment costs should be reflected in the science program. Likewise, the cost of science field trips should be shown as a cost in the science program.

In some cases it may be desirable to prorate certain costs to various program elements or programs. For example, a teacher who works in two different programs or program elements should have her salary allocated to both programs or program elements. Decisions concerning the allocation of supply and utility costs could be made on a similar basis.

Caution should be exercised as to the degree of prorating costs. Some school personnel may deem it desirable to prorate all costs (operational support, instructional support, policy, coordination, and control) back to the instructional programs. An analysis of such a proposed procedure should consider the effect upon the decision-making activities. Showing a portion of the superintendent's salary in each program element does not provide much more useful information to the decision makers. All of the program element costs would remain in the same relative position. A decision to remove a program element activity would not result in a corresponding reduction in the superintendent's salary. Prorating such costs may require more time and effort to accomplish than it has worth to the decision makers.

If school personnel decide to prorate certain costs or if the program structure adopted by a school district requires proration (for example, a subject matter oriented program element at the elementary school level), the guidelines provided below suggest the units to be used.

Item to be Prorated	Unit of Proration
Heat and Electricity	Per square foot of floor space
Library Books	Per student
Plant Maintenance	Per square foot of floor area
Property Insurance	Per square foot of floor area
Rent	Per square foot of floor area
Salaries and Fringe Benefits	Per cent of time employee spends in activity
Staff Development	Per cent of total staff assigned to the program or program element
Substitutes	Per cent of total staff assigned to the program or program element
Supplies	Per student
Transportation	Per student
Water and Sewer	Per student

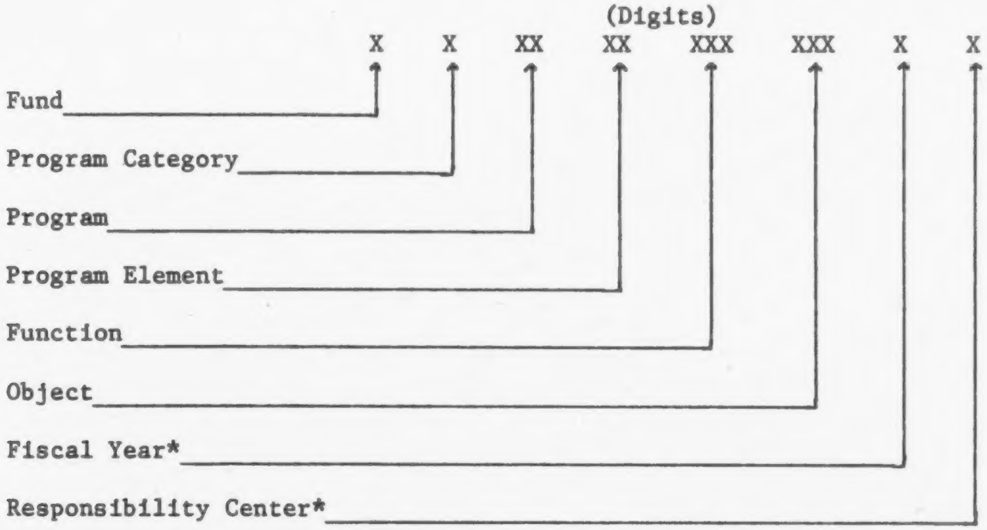
APPENDIX L

Account Code Structure

The account code structure necessary to support the requirements of PPBS and the line-item controls will vary depending upon the program structure adopted by a district and the type of accounting equipment used. Prior to establishing a new account code structure, a clear understanding of the budgeting and accounting process must exist. The roles of various personnel, the degree of budget decentralization, and the reports required should be resolved.

Care must be exercised when developing the coding structure to insure that the required state and local report information can be obtained through the new structure. It is advisable not to adopt and implement new accounting systems and a new coding structure at the same time.

The new coding structure should be designed to be flexible because of the changing nature of the program structure. Some school districts can develop an adequate coding structure by simply adding more digits to their present coding system. An illustrative code structure is provided below followed by a more detailed structure for a school system.


(Digits)
X X XX XX XXX XXX X X
Fund
Program Category
Program
Program Element
Function
Object
Fiscal Year*
Responsibility Center*

*Desirable but not necessary

APPENDIX M

Selected References

SELECTED REFERENCES

The staff of the Western New York PPBS Project found the following references particularly helpful:

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W.N.Y.
PPBS
PACKAGE 1

AN OVERVIEW PPBS CONCEPTS LESSON AND A USER'S GUIDE TO THE W.N.Y. PPBS PERFORMANCE SYSTEM

WESTERN
NEW YORK
PPBS MODEL

EA 004 577

1972

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An Operational Model for the Application
of Planning-Programming-Budgeting Systems
to Local School Districts

Post-Pilot-Test Version

AN OVERVIEW PPBS CONCEPTS LESSON AND A USER'S GUIDE TO THE W.N.Y. PPBS PERFORMANCE SYSTEM

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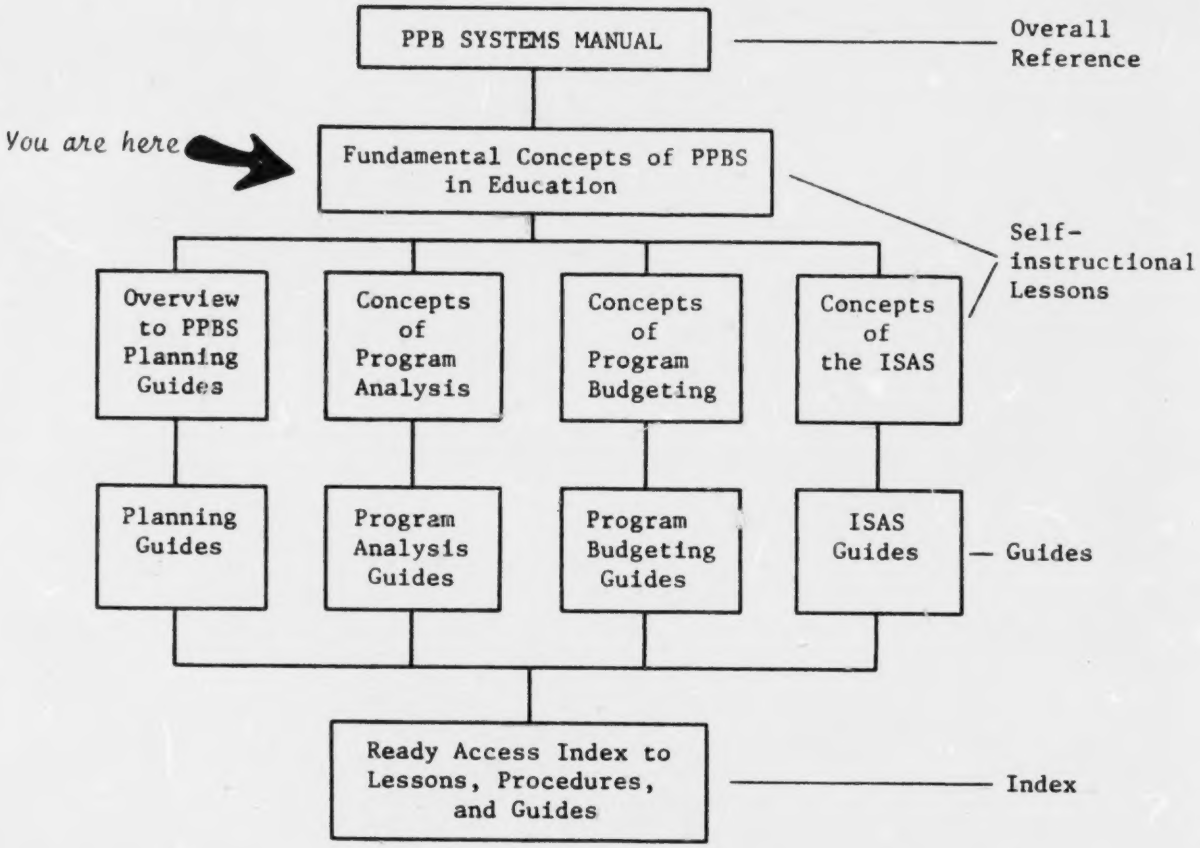
FUNDAMENTAL CONCEPTS OF PPBS IN EDUCATION

--A Self-Instructional Lesson--

WESTERN NEW YORK PPBS TRAINING PACKAGE


PPB SYSTEMS MANUAL
Overall Reference
You are here
Fundamental Concepts of PPBS in Education
Self-instructional Lessons
Overview to PPBS Planning Guides
Concepts of Program Analysis
Concepts of Program Budgeting
Concepts of the ISAS
Planning Guides
Program Analysis Guides
Program Budgeting Guides
ISAS Guides
Guides
Ready Access Index to Lessons, Procedures, and Guides
Index

INTRODUCTION

This self-instructional lesson is about a *Planning-Programming-Budgeting System* for educational management, or, PPBS. The lesson has these purposes:

- To familiarize you with the general model for PPBS in educational management, including phases and sequence of the PPBS process.
- To acquaint you with the general procedures involved in Planning, Programming, and Budgeting phases, and how those phases interrelate.
- To familiarize you with the vocabulary of PPB, or the "language" of the model, that you will be using as you work with PPBS.

This is an *overview* lesson. It is designed to prepare you for subsequent involvement with the training and guidance materials in a specific phase of PPB by giving you the "big picture." The diagram on the opposite page of this lesson shows you precisely where you are in the training package.

The phrase, "self-instructional lesson," simply means that the lesson is designed to present content in an individualized, self-paced manner. It is our way of talking with you about the basic concepts of PPBS. The lesson works best if you follow the directions literally, filling in the blank or checking a multiple-choice answer, as indicated. Work at the pace most comfortable for you. Some of you will probably work through the lesson rapidly as a check on the knowledge you already possess. Others of you, with little or no knowledge of what PPBS is all about, will want to work at a slower pace. There is no "correct" completion time so proceed at the pace that lets the lesson *work for you* as an individual.

Additionally, this lesson may prove helpful for future reference, especially if there is a considerable time lapse between when you complete and when you actually begin work on a specific phase of PPBS.

Now, to begin at the beginning ...

CLEARING THE AIR ...

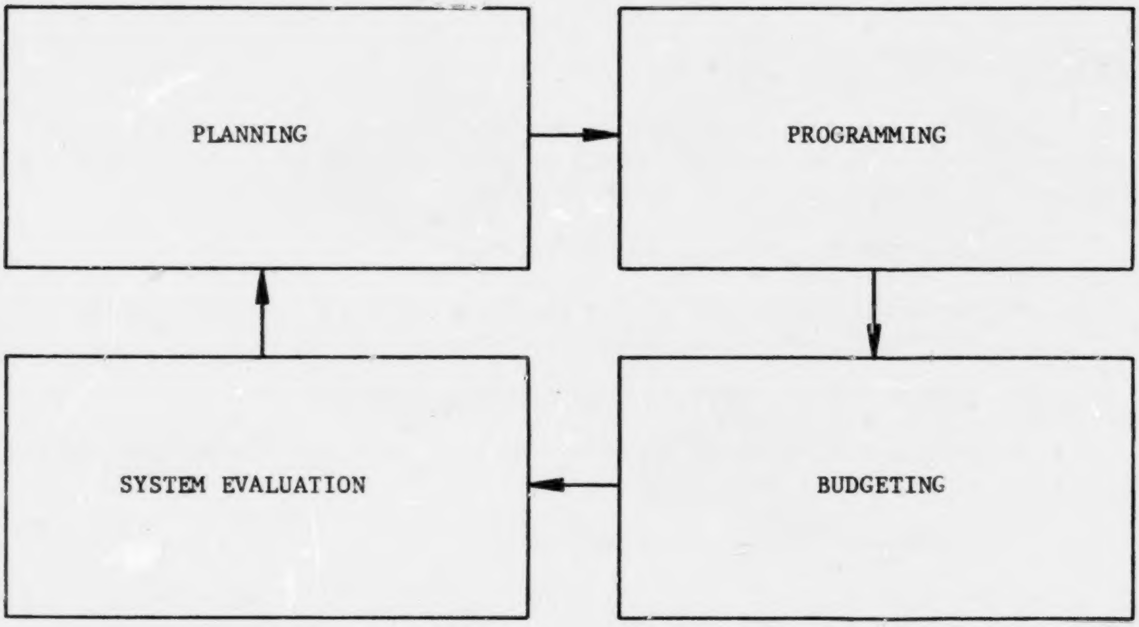
What is PPBS? So much has been written and spoken about PPBS in recent years that a great deal of confusion exists as to exactly what PPBS *is*, and what it *is not*. This is largely due to the fact that what has been said about PPBS has largely focused on *why* it is a good management system, rather than on *what it consists of* and *how it works*. This lesson will get back to basics and explore the general PPBS model and how the PPBS process operates.

A *Planning-Programming-Budgeting System*, or PPBS, is a *process* for efficiently accomplishing the following tasks:

- Determining Needs: Deciding what kinds of educational programs are relevant to the community.
- Generating Objectives: Specifying the desired measurable results of educational programs at various levels.
- Choosing Among Alternative Methods: Identifying and deciding among various methods for achieving the educational objectives.
- Allocating Funds on Priority Needs Basis: Spending community money on educational programs which deal with areas of the community's greatest educational need.
- Evaluating Educational Programs: Measuring *actual achievement* resulting from Programs and comparing it with *desired achievement* indicated in the objectives.
- Revising: Redefining needs, objectives, educational programs and allocation of funds based on feedback obtained from evaluation.

The PPBS process is distributed over four separate but interrelated functions -- *Planning, Programming, Budgeting,* and *System Evaluation*. Their sequence and relationship is depicted in the diagram at the top of the next page.

FUNCTIONS OF THE PPBS PROCESS



After studying the itemized PPBS process description on the previous page, and the PPBS function diagram above, indicate the *PPBS function* to which you think each of the *PPBS process tasks* belongs by placing a checkmark in the appropriate column.

PPBS Process Tasks (in scrambled order)	PPBS Functions			
	Planning	Programming	Budgeting	System Evaluation
1. Allocating funds ...				
2. Evaluating programs ...				
3. Generating objectives ...				
4. Revising ...				
5. Determining needs ...				
6. Choosing among alternatives ...				

Check your answers at the top of the next page.

Answers to Page 3:

Planning - 3, 5	Budgeting - 1
Programming - 6	System Evaluation - 2, 4

WHAT IS PLANNING?

Let's widen the focus of this lesson for a moment and consider not just education, but life in general. Think of getting ready to go on a family vacation. It is not uncommon to do these kinds of things:

- Have the car tuned up and lubricated.
- Contact a travel bureau for the best route map and information on accommodations and points of interest along the way.
- Make a list of recreation equipment to take.
- Make a list of tasks to do at the last minute to "close the house" for two weeks.
- Purchase travellers' checks.

And the list goes on. The activities specified above are obviously *planning* activities. Note that each relates to a *specific need:*

Car Maintenance - Need for safe, trouble-free transportation to and from the vacation site.

Route Information - Need for comfortable, efficient travel and services en route to and from the vacation site.

Equipment List - Need for appropriate recreational equipment to use at chosen vacation facility.

"Close House" List - Need for knowledge that house and property will remain secure and undamaged during absence.

Travellers' Checks - Need for financial security en route and during vacation.

So, as human beings, we *plan* in response to *existing* or *anticipated need.*

How do we know our existing needs, or anticipate them? They are often explicit, but often we respond to *indicators* which serve as need input. The need for prevacation car maintenance might be indicated by frequent stalling, overheating, or "funny noises" in the engine. We respond to indications that things are not as they should be. In fact, a *need* can be generally defined as:

> The difference between an existing state or condition and the state or condition which is desired.

Back to education now. How does a district determine its educational needs?

a. By determining the "as is" educational status of the various district educational programs. ☐

b. By describing the "should be" characteristics of the various district educational programs. ☐

c. By doing both *a* and *b* and comparing the "as is" with the "should be." ☐

- -

Feedback: Yes, *c* is consistent with our definition of a need -- in this instance, educational need.

- -

What are probably the best sources of need indicators in the district community?

a. The teachers and administrators. ☐

b. The students and community residents. ☐

c. Both *a* and *b*. ☐

- -

Feedback: Sure, *c* is correct. Teachers and administrators, using their educational expertise and data in concert with student and community opinion and survey data, can best identify the educational needs of the community.

- -

In our simple analogy of the family vacation, we deliberately omitted a factor that is even more crucial in education. Specifically, planning is most important when *needs compete with one another* for limited time and money. Obviously, given unlimited funds and vacation time, the requirement for planning is lessened or eliminated.

In education, programs representing *specific needs* must always compete for funding from *limited public monies*. Obviously, *planning based on school and community input* is vital to meeting the educational needs of the district.

PLANNING: OBJECTIVES AND PROGRAM STRUCTURE

Earlier in this lesson, when establishing the general PPBS model, we indicated that *objectives* played a very important role in the PPBS process. In fact, one simplified definition of PPBS is "A process for educational management using goals and objectives as a base." What *are* objectives, and what do they *do* to facilitate educational management?

Here's a sample district-level objective:

> "By 1975, 90% of the students in the district's schools which have student governments will be participating in them. Minimum participation is defined as registering and voting voluntarily in school elections."

Does the sample objective tell you:	Yes	No
1. Who the intended performer is?	☐	☐
2. What he is to do?	☐	☐
3. Where he is to do it?	☐	☐
4. How well he is to do it?	☐	☐
5. Within what period of time?	☐	☐

- -

Feedback: Yes, a good objective will always tell you *all* of those things. Who - "students"; what - "participate in student government"; where - "in district schools"; how well - "90%"; by when - "1975."

- -

Let's define an objective as "A measurable, desired result to be accomplished within a specified time period." Keeping that definition and our sample objective in mind, answer these questions:

1. Can the sample objective be measured? __________ If so, how? __________
____

2. Are 90% or more of the students in district schools now participating in student government? __________ How do you know? __________
____

3. Can progress toward achieving the sample objective be measured annually? __________ If so, how? __________

Compare your answers with ours at the top of the next page.

Answers to Page 6:
1. Yes - by tabulating student registration and voting.
2. No - that is the *desired result* by 1975.
3. Yes - by annually tabulating increase in student registration and voting.

Objectives are statements of intent that serve to close the gap between a present "as is" situation and a desired "should be" situation at some point in the future. They may vary in their level of specificity and still be useful, well-written objectives. Look at these examples:

A. By 1975, 90% of those members of each graduating class who will be terminating their formal education will be provided with a job-entry skill as indicated by response to a survey conducted annually for terminal students during the September following their graduation.

B. By 1975, at least 45% of the seniors graduating from J.J. Senich Senior High School will receive New York State Regents Diplomas, and at least 20% of the graduating seniors will receive Merit Diplomas.

C. At the end of Grade 12 Language Arts, 85% of the students enrolled in regularly scheduled Senior English classes will score at or above the 80th percentile on the capitalization, punctuation and usage sections of a department-wide, teacher-constructed mastery test based on instruction provided over the senior year.

Answer these questions:

1. Which objective is *most specific?* ______________________

2. Which objective is *most general?* ______________________

3. Which objective is probably written at the *district level?* ____________

4. Which objective is probably written at the *school level?* ____________

5. Which objective is probably written at the *course level?* ____________

6. Do all of the objectives tell you "who-what-where-how well-and by when? ____________

Check your answers at the top of the next page.

Answers to Page 7:

1.	C	3.	A	5.	C	6. Yes - they all meet the criteria for good objectives.
2.	A	4.	B			

We have seen that objectives have the following characteristics:

- They describe desired performance results.
- They specify the performer, what he must do, where he must do it, how well, and by when.
- They are written in measurable terms.
- They may be written at varying levels of specificity.

In the last example on the previous page, we saw that the levels of specificity of the three sample objectives suggested at least a *hierarchy* or *order of objectives:* District-School-Course. This categorization or grouping of common objectives according to an organizational framework leads to development of a *Program Structure*. This is simply a management tool for examining the various activities of a school district according to their common goals and objectives. In other words, the Program Structure of a school system parallels its goals and objectives according to where they belong in a general-to-specific hierarchy.

Here's an example of objectives related to Program Structure.

PROGRAM STRUCTURE LEVEL	ACTIVITY	TYPE OF OBJECTIVE
1. School System	Administration of all Program Categories in the district.	General, directive, long-range goals for Program Category.
2. Program Category	Administration of all *Programs* sharing objectives under specific category (e.g., Instruction, Operational Support.)	Explicit multiyear objectives for the specific Program.
3. Program	Administration of all *Program Elements* contributing to the achievement of Program objectives (e.g., an individual school).	Precise, measurable, multiyear objectives for the specific Program.
4. Program Element	Administration of all activities and experiences that contribute to achievement of *Program Element* objectives (e.g., social studies, mathematics, etc.).	Precise, measurable, multiyear objectives for the specified Program Element.
5. Sub-Program Element	Administration of all activities and experiences that contribute to achievement of *Sub-Program Element* objectives (9th grade Civics, 10th grade Algebra, etc.)	Precise, measurable, multiyear objectives for the specified Sub-Program Element.

As you can see, each of the five levels of Program Structure represents a *decision-and-planning level*, each with its own set of objectives.

1. At which level would you expect the objectives to be *most specific and measurable?* ______________________________

2. At which level would they probably be *most general?* ______________________________

3. It is apparent then that the smaller the unit for which one is planning -

    a. The more specific and measurable the objectives. ☐

    b. The more general and indefinite the objectives. ☐

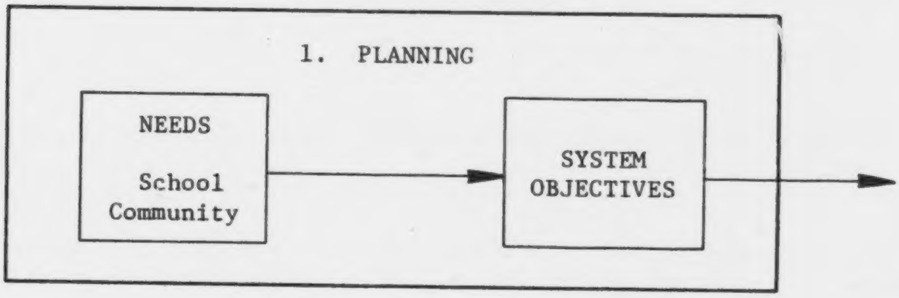
    c. There is no relationship between planning unit size and specificity of objectives. ☐

Feedback: 1. At the Sub-Program Element level.
2. At the school system level.
3. *a* - The smaller the planning unit, the more specific and measurable the objectives.

Program Structure is, then, a vehicle for *categorizing and analyzing* the various activities and products of a school system for planning and management purposes.

There is no prescriptive "right" Program Structure. Each school system working with the PPBS process must establish its own hierarchial arrangement that serves to relate objectives to activities at all levels.

Here is the first block of a flow chart that will evolve in subsequent pages to depict the overall PPBS process. This first block displays the Planning function as the generating of objectives based on analysis of school and community input as to the district's educational needs.



WHAT IS PROGRAMMING?

Let's return to the family vacation analogy briefly in order to determine what the Programming function is all about. Suppose that the fundamental objective resulting from a Planning session is --

"To provide the children with first-hand knowledge of the geography and culture of the various areas of the U.S.A."

What is the next logical question to be answered?

a. How can that objective be achieved? ☐

b. What will achieving the objective cost? ☐

c. Which section of the U.S.A.? ☐

- -

Feedback: *a* is the best choice here. Determining cost (*b*) is important, but must await determination of *a*. Choice *c* is also a later step in the Programming process.

- -

Suppose, in answering how the objective can best be achieved, you specify the following alternatives:

1. Tour the country by automobile, staying at preselected hotels and motels.
2. Tour the country by camper van, with self-contained food and lodging facilities.
3. Tour the country by train, plane, and rental car, staying at preselected hotels and motels.

What does the selection of one of the above alternatives largely depend on?

a. Family preference as to mode of travel. ☐

b. Vacation time and funds available. ☐

c. Sections of the country chosen for tour. ☐

- -

Feedback: Of course, *b* is the prime consideration. How much money and time are available for the vacation.

- -

You have two weeks and $1,000 in available funds. A closer look at the alternatives shows that neither alternatives 1 or 2 will work within the time constraint, and that alternative 3 exceeds the cost constraint.

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None of the alternatives for achieving the objective are feasible within the time and money constraints. What might be the next logical step?

a. Reject the objective and plan another vacation. ☐

b. Use time and money available to tour only one section of the U.S.A. ☐

c. Develop a program for achieving the objective over three to five annual vacations instead of one. ☐

- -

Feedback: *c* is the answer we hope you selected. Your reasoning in this situation might be, "Well, if I can't do it all this year, I'll determine just how much I can accomplish and plan to accomplish the remainder over the next few vacations."

- -

Having decided on *multiyear achievement* of the objective, it is important to note several important implications of that decision:

- *Costs* must now be considered on a multiyear basis. For example, purchase of a camper van for a single vacation is an enormous expense -- but over a three to five-year period, that initial cost is tempered by its continued use.
- *Annual planning* is required. Each year, achievement toward the objective must be reviewed, and the remaining subsequent years planned and programmed accordingly.
- *Need*, as represented by the objective, may diminish. School trips or visits with relatives over school vacations may lessen or eliminate the original need.

In education, *Programming* is concerned with specification of alternative sets of activities that will result in achievement of the objectives that were produced by the Planning function. That is, *Planning* determines where the district's various educational programs are going; *Programming* specifies the several ways to get there in terms of activities, resources required, and costs.

Since the purpose of Programming is to relate objectives with alternative sets of activities for their achievement, the Programming function begins with describing the district's *Program Structure*, discussed earlier.

Thus far, we have seen that the *Planning* function involves:

- Determining community educational needs.
- Generating objectives for meeting those educational needs.

And that the *Programming* function involves:

- Developing a *Program Structure* to allow relating objectives to activities.
- Developing *alternative sets* of Program activities to achieve Program objectives.
- Selecting the *optimum* Program alternative.

What about Programs that "aren't working" -- that are not achieving their objectives? Or innovative Programs designed to respond to a priority need? How are deficient Programs remedied? How are priority innovative Programs implemented?

Those questions caused the development of a special Programming subsystem as a branch of the Programming function. This subsystem, which deals specifically with analysis of deficient or innovative Programs, is known as *Instructional Systems Analytical Study*, or *ISAS*.

An ISAS closely resembles the PPBS process in miniature. Its focus is on a particular Program, instead of the total school system and community.

Based on your knowledge of the general PPBS process, hypothesize the first step of an ISAS.

a. Determine the effectiveness of the Program's activities. ☐

b. Determine if the need for the Program still exists. ☐

c. Determine the achievement of Program objectives. ☐

- -

Feedback: Just as in PPBS, you would want to determine if need for the Program exists (*b*) as a first step.

- -

Once the Program need has been verified, what is the next logical step?

a. Determine if adequate funds were allocated for the Program. ☐

b. Determine the achievement of Program objectives. ☐

c. Determine if Program objectives relate to Program need. ☐

- -

Feedback: *c* is correct -- the objectives must be valid in terms of the educational need or the Program is misdirected from the outset.

The need has been verified, and the objectives have been determined valid in relation to need. What next?

a. Determine if adequate funds were allocated for the Program. ☐

b. Determine the achievement of Program objectives. ☐

c. Determine what alternative Program activities exist. ☐

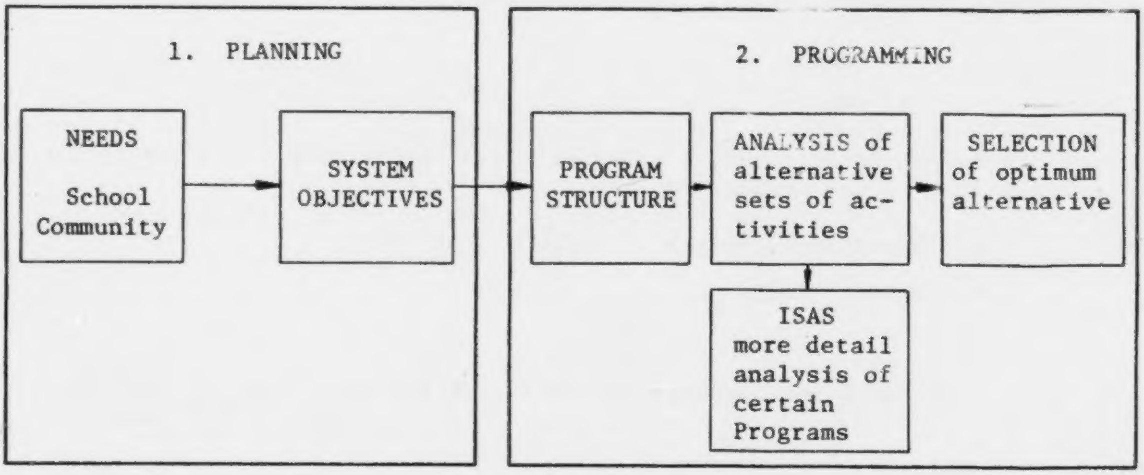
Feedback: We know the need, the objectives, the structure, and the activities of the present program. Next we need to determine what alternatives exist (*c*).

The similarity to the general PPBS process should be apparent. In addition to the steps presented, the ISAS subsystem for Program analysis and revision requires:

- Projection of multiyear costs and effectiveness of Program alternatives.
- Selection of most cost-effective Program alternative.
- Funding and implementation of selected Program alternative.

Remember that while cost and achievement data of all Programs are collected and analyzed annually, *not all* Programs are revised by means of an ISAS. Only those most deficient in meeting their objectives, or of an innovative priority nature, are revised via a rigorous ISAS analysis.

The second block in the overall PPBS flow chart displays the Programming function and its relationship to Planning.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NEEDS
School Community
SYSTEM OBJECTIVES
2. PROGRAMMING
PROGRAM STRUCTURE
ANALYSIS of alternative sets of activities
SELECTION of optimum alternative
ISAS more detail analysis of certain Programs

WHAT IS BUDGETING?

Budgeting, in the context of PPBS, is quite different from what might be described as traditional budgeting. This difference is perhaps best seen by looking at examples of what a traditional and a program budget emphasize.

Traditional Budget Categories	Program Budget Categories
● A-V equipment	● Drug Education
● Classroom furnishings	● Adult Literacy
● Classroom supplies	● Jr. High Instruction
● Textbooks	● Health Services

Answer these questions:

1. Which budget emphasizes the cost of *resources?*

   a. Traditional budget. ☐

   b. Program budget. ☐

2. Which budget emphasizes the cost of *services* or curricular programs?

   a. Traditional budget. ☐

   b. Program budget. ☐

3. Would the *traditional budget* categories serve to report funds received and expended?

   a. Yes ☐

   b. No ☐

4. Would the *program budget categories* necessarily include the costs incurred in the *traditional budget categories?*

   a. Yes ☐

   b. No ☐

5. Which budget employs budget categories that are probably related to the *objectives* of the various Programs.

   a. Traditional budget. ☐

   b. Program budget. ☐

Check your answers at the top of the next page.

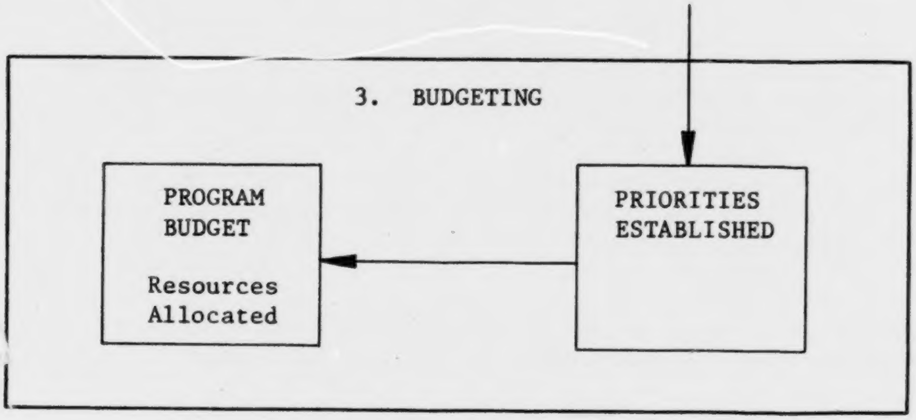
Answers to Page 22:
1. a 2. b 3. a 4. a 5. b

We hope that you see the difference between a traditional budget and a program budget as *what is accounted for by the budget document.* The traditional budget, prepared largely for the convenience of accountants, reports quantities and costs of *things purchased.* The program budget shows *educational outputs* or *services* that the public receives as a result of allocation of funds based on the Planning and Programming functions.

The emphasis of a program budget is based on the rationale that the educational budget should provide the public with visible expression of values and educational priorities. A program budget is, therefore, concerned with *Program objectives* and is *Planning oriented.* "Things," or quantities of resources such as classroom supplies and textbooks, are still purchased, *but* their purchase is reported as part of a curricular program that seeks to achieve certain predetermined objectives that reflect a community need.

Program budget decisions are, then, selecting among the alternative Programs (identified in the Programming function) which serve to achieve the objectives (specified in the Planning function). Costs are *directly related* to objective-oriented Programs, which means that the program budget is the district's educational plan. As such, it is executed once authorized by the Board of Education or voter approval.

The third block in the overall PPBS flow chart displays the *Budgeting* function.



WHAT IS SYSTEM EVALUATION?

How is the effectiveness of the activities described in the Planning, Programming, and Budgeting functions determined? How does PPBS provide for correcting, revising, renewing, or innovating its various educational programs. Obviously, another PPBS function is required to "close the loop," and that function is *System Evaluation*.

Based on what we have presented about PPBS, what do you think *System Evaluation* focuses on?

a. Costs and achievements of educational programs. ☐

b. Teacher reaction to implementation of educational programs. ☐

c. Student/community attitudes about educational programs. ☐

Feedback: The correct choice here is *a*. Systems Evaluation is most directly concerned with *what educational results* were achieved, and *at what cost*. We are not saying that *b* and *c* are not useful evaluative data -- but that evaluative emphasis is on *a*, costs and achievements.

What is probably the best method of measuring achievement results of the various educational programs?

a. Have teachers submit an annual report of what their instructional activities were. ☐

b. Conduct massive standardized testing in June of each year to determine students' level of achievement. ☐

c. Determine and compare where students are after completing a program to where they were when they entered it. ☐

Feedback: If we want to know what gain resulted from a particular program, then *c* is the correct choice here -- comparing preprogram performance to postprogram performance.

How does systematic analysis aid decision makers in determining if a specific program should be continued, revised, or eliminated?

a. By reporting students' final achievement level. ☐

b. By reporting student progress resulting from the Program. ☐

c. By providing pre- and postprogram achievement data for comparison with achievement specified in Program objectives. ☐

Feedback: Yes, *c* is again the correct choice. By comparing actual student progress to achievement described as desirable in Program objectives, the effectiveness of the Program can be determined. This is valuable input for decision making about various educational programs.

System Evaluation also involves precise reporting of funds expended on each Program. What role does such cost data play in Program evaluation?

a. Serves as a check on proper expenditure of funds. ☐

b. Relates educational expenditures with actual educational results. ☐

c. Indicates how much more in funds is required for achieving Program objectives. ☐

- -

Feedback: The choice here is *b*. One of the purposes of System Evaluation is to relate actual dollar cost to actual educational results of variour Programs. These cost-effectiveness data are fed back into the Planning and Programming functions annually where they are used in making decisions as to the priority, design, and implementation of the district's educational programs.

- -

In addition to their implications for annual Planning and Programming activities, how else might the cost-effectiveness data resulting from System Evaluation be used?

a. As a "performance report" to the public on what *educational achievement* its tax dollars purchased over the last year. ☐

b. To compare district schools against one another in order to rate their instructional accomplishments. ☐

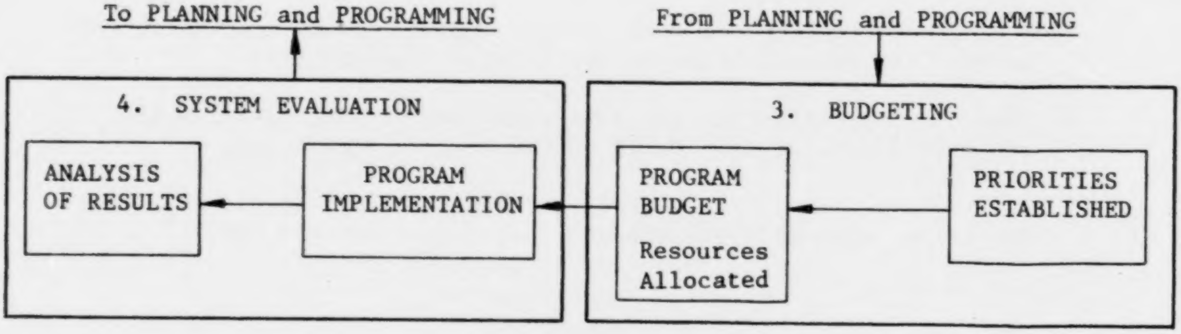
c. Both *a* and *b*. ☐

- -

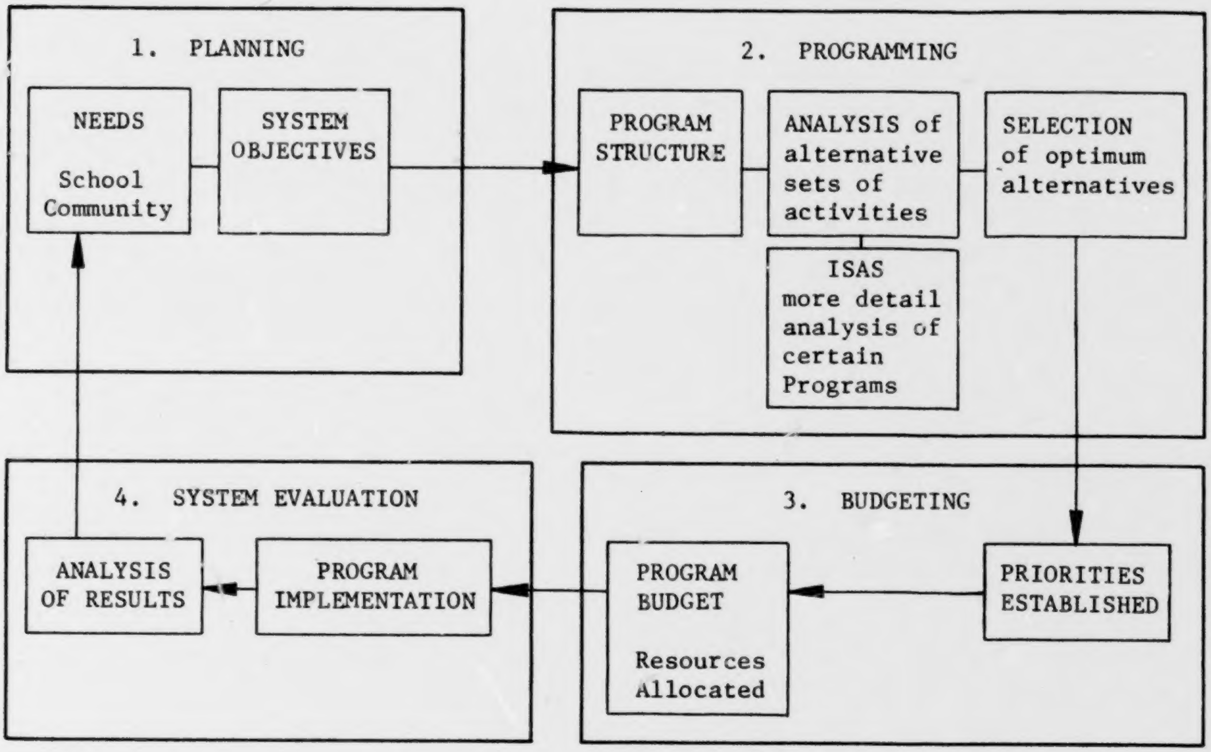
Feedback: *a* is correct. Recent trends have shown that this is exactly the kind of information the public wants about its schools. Choice *b* is impractical in that PPBS states that each *school* may be a Program responding to particular needs of the population it serves. Across-the-board comparison of achievement would not be valuable, due to differences in objectives from school to school.

- -

The fourth and final block in the flow chart is, then, the System Evaluation block, which closes a feedback loop to the Planning and Programming functions.


To PLANNING and PROGRAMMING
From PLANNING and PROGRAMMING
4. SYSTEM EVALUATION
ANALYSIS OF RESULTS
PROGRAM IMPLEMENTATION
3. BUDGETING
PROGRAM BUDGET
Resources Allocated
PRIORITIES ESTABLISHED

PUTTING IT ALL TOGETHER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Resources Allocated
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PROGRAM IMPLEMENTATION
ANALYSIS OF RESULTS

1. PLANNING

- School staff and students and community residents are surveyed regularly to collect data for educational decision making.
- Data collected are analyzed and summarized into statements of the community's educational needs.
- Priorities of identified needs are established.
- Statements of district goals and objectives are generated for all areas of educational need.

2. PROGRAMMING

- A Program Structure allowing for the organizational examination of objectives and activities is developed by the district.
- Specific objectives are generated, consistent with district goals and objectives, at all levels of the Program Structure.
- Alternative sets of activities for accomplishing the various Program objectives are described and analyzed on a multiyear basis.

- The optimum set of activities is selected from the alternatives on the basis of comparative estimated effectiveness and cost.

- Deficient or innovative priority Programs are subjected to more detailed analysis (ISAS).

3. BUDGETING

- Costs of achieving Program objectives via the selected set of activities are examined.

- Funding priorities are established, based on district needs.

- Specific Programs providing greatest achievement for most reasonable cost in *priority areas* are selected for implementation.

- Expected results and costs of each Program for the coming year are reported to the public.

- The public, or its representatives, authorizes the intended allocation of funds for the achievement of the results described for the district Programs.

4. SYSTEM EVALUATION

- Achievement of Program objectives and funds expended for each Program are documented and analyzed.

- Achievement and cost data analysis for each Program become input to the Planning and Programming functions for subsequent years.

- Achievement and cost data for each Program are reported to the public.

- Program achievement and cost data, plus continuing analysis of the community's education needs, result in revision of objectives, Program Structure, and the district's curricular Programs.

You deserve a break! When you return to this lesson, review the PPBS Flow Chart and Functions summary on these pages before going on to the next section.

WHY PPBS IS NEEDED

Perhaps the best way to describe the need for the PPBS process in educational planning and management is to examine some statements about the situation that education finds itself in today. Indicate whether you think each statement is *true* or *false* by placing a check in the appropriate column.

		True	False
1.	"Rapid and pervasive change is a fact of education today. Change will continue, and will be increasingly complex."	_____	_____
2.	"There is nothing wrong with the schools that more money wouldn't cure."	_____	_____
3.	"Schools are in crisis; a general taxpayer's revolt is brewing, and demands for accountability are growing."	_____	_____
4.	"All the public wants to know is how much the schools spent and how much overbudget they are -- they aren't concerned with educational results."	_____	_____
5.	"Educational administrators have not done a commendable job of describing Program accomplishments to a discerning public."	_____	_____
6.	"Costs are rising, educational activities are becoming increasingly complex, and there is increased public and legislative demand for evaluation and accountability."	_____	_____
7.	"A school system's budget should clearly reflect what the community holds as values and socio-economic priorities."	_____	_____
8.	"Budgets should be prepared for the convenience of accountants, not necessarily to communicate with educators or the public."	_____	_____

Compare your responses with ours at the top of the next page.

Feedback: Recent studies reported in educational literature indicate:
1, 3, 5, 6, and 7 are *true*.
2, 4, and 8 are *false*.

Statements 2, 4, and 8 are *false* because more money is not the answer to the problems confronting our schools *if it is expended on irrelevant or outmoded Programs*.

The public *does* want to know how much is spent on schools, and particularly how much overbudget the schools are, but that does not preclude their interest in *educational results of various Programs*. In fact, their demand for *precisely* this type of information is growing, which clearly indicates that educational budgets should be prepared to serve as planning and management documents for educators, and performance achievement and cost reports for the public. In this light, whether or not educational budgets are convenient for the accounts is of negligible concern.

Summarizing the accurate statements about PPBS, it is clear that PPBS is needed:

- To provide short-term improvement in school management in the face of an increasingly disenchanted public and growing demands for accountability.
- To provide long-term management of the change that is part of education today, and will become increasingly complex in future years.
- To provide long-term improvement in describing educational accomplishments to the public.
- To develop effective educational Programs in a world of rising costs, limited funds, and increasingly complex educational activities.
- To expend limited funds on Programs that are relevant to community educational and socio-economic values.

SUMMARY OF CONCEPTS

In this lesson, we've presented a general PPBS model and described the *activities* and *interrelationship* of the PPBS functions. We've talked about what PPBS is and is not, and why it is needed. Check off the following concepts as you recall them.

☐ PPBS is the abbreviation for Planning-Programming-Budgeting System.

☐ PPBS is an evolutionary process for *identifying* and *changing* that which needs to be changed in order to produce relevant Programs in areas of greatest need.

☐ As a process, PPBS requires *determining needs*, *generating objectives*, *choosing among alternative methods* to achieve objectives, *allocating funds* on the basis of priority of needs, *evaluating* in terms of costs and achievement of objectives, and *revising* based on evaluation data.

☐ PPBS is old in concept but new in application, especially in education.

☐ PPBS *is not* necessarily a cost-reduction system.

☐ PPBS *is not* purely financial in focus.

☐ PPBS *is not* a computerized decision-making system.

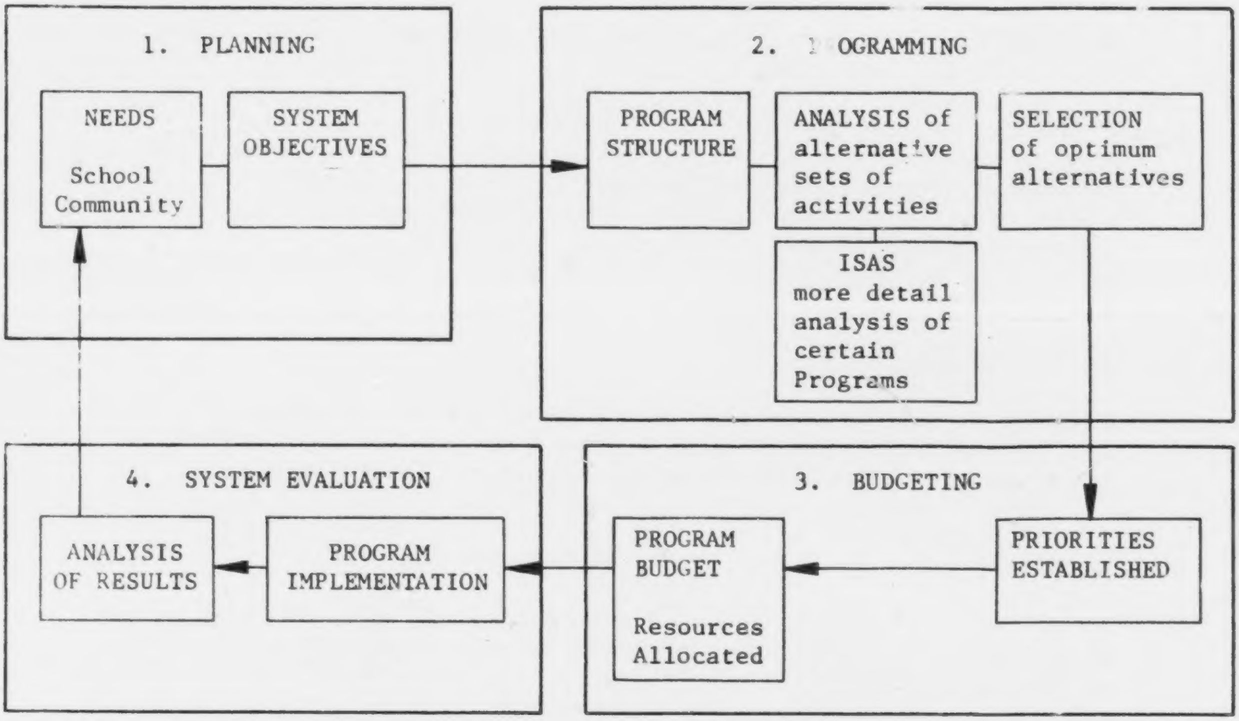
☐ PPBS *is not* a teacher-evaluation system.

☐ PPBS is needed for short-term improvement in crisis areas confronting schools, and long-term management of effective educational change.

☐ PPBS is needed to assure allocation of limited funds on educational programs that are relevant and responsive to community needs and values.

☐ PPBS offers teachers a new and dynamic participative role in educational planning and decision making.

PPBS FUNCTIONS FLOW CHART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PRIORITIES ESTABLISHED

The PPBS functions displayed above combine as indicated to comprise a process for educational management that offers these results:

- Planning educational programs that are responsive to the unique needs and desires of the community as determined by members of the community, staff, and students.
- Communicating to the community, staff, students, and outside agencies how those needs are to be met in the school system.
- Choosing among the alternative ways in which a district can allocate available resources to achieve its goals and objectives.
- Providing an evaluation of the Programs that will provide the basis for further decisions and Program revisions.

SOME QUESTIONS AND ANSWERS ABOUT PPBS

Q Isn't PPBS a revolutionary plan for total revision of public education as we know it?

A By design, PPBS is probably more *evolutionary* than revolutionary. It is a *process* for identifying and changing that which needs to be changed in order to provide relevant Programs in areas of greatest need. The change occurs over time, in that areas of greatest need are always given priority, and the priorities are constantly updated from year to year.

Q Isn't PPBS new?

A Although it was "re-invented" by the RAND Corporation during the 1950's and implemented by the Federal Government during the 60's (and 70's), its fundamental concepts can be traced back at least 25 years.

Q Isn't PPBS actually an old theory of budgeting?

A As we have said above, it is old in concept. In 1949, the Hoover Commision issued a report that described budgetary concepts closely akin to what most people call the PPBS of today. So, PPBS is old in concept, and new in implementation, especially in the field of education.

Q PPBS is just another way to produce an educational budget. Right?

A Wrong. If the PPBS process results in "just another budget," then it has failed. PPBS serves to recast and redirect the whole focus of budgeting, to put the emphasis on *outputs*, or results of Programs, rather than on *inputs*, or things required to operate the Program.

Q Does PPBS help to make the decision-making process explicit and objective?

A If improving the quantity and quality of information available to the decision maker through regular collection, analysis, and summarization can be assumed to make decision making more explicit and objective, then the PPBS process does so.

Q Is it true that PPBS is a scheme for evaluating teachers?

A No. Nowhere in the process are teachers rated, evaluated, or compared one against the other. Working within the process, teachers do produce detailed plans for their courses that permit evaluation in terms of performance outcome. In other words, the individual teacher specifies what he intends to accomplish, and how that accomplishment can be measured.

Q Isn't PPBS an attempt to computerize the decision-making process?

A False. The PPBS, like a computer, is a tool. Neither were designed to reduce decision making to routine and quantitative steps, but rather to aid the decision maker by helping him be better informed. PPBS cannot substitute for common sense and competence at any level of the process.

Q Does PPBS always result in reduction of educational costs?

A Money-saving *may* result from PPBS, and then again, it *may not*, depending upon the particular situation. In any situation, it will result in allocation of limited public funds on areas of greatest priority and need, and that is important.

Q Why is PPBS in education purely financial in focus?

A It isn't. PPBS is concerned with curriculum, instructional activities, alternative activities, instructional objectives ... in fact, with every area of educational planning. This is what sets it apart from "status quo" educational management and planning.

Q Isn't PPBS really something for the business office to work with?

A No. PPBS is a participative process that offers the citizen and the teacher a very real chance to be involved in planning and decision making. It is sadly true that if the citizen and teacher reject the chance, then someone further removed from the community and classroom will fill their role.

Q What about the rumor PPBS means more work for teachers for no additional pay?

A You have only our word for it at this point, but PPBS is probably the best news for teachers since the invention of the duty-free lunch period. PPBS offers teachers a new, exciting, and vital role in educational planning and management.

THE WESTERN NEW YORK PPBS TRAINING PACKAGE

After three years of development and revision, the Western New York PPB Systems Manual has been refined into the current version. Basically, the Manual consists of the following components:

- Board of Education Statements of Policy regarding PPBS.
- Master Flow Chart detailing PPBS functions.
- Description of required organization and functions.
- Narrative on objectives and Program Structure.
- Narrative summary of PPBS procedures.
- Flowscript specification of PPBS procedures.
    - Planning - 23 procedures
    - Programming - 6 procedures
    - Budgeting - 6 procedures
    - ISAS - 7 procedures
- Appendices and References

To assist school districts in implementing PPBS according to the Systems Manual, a *training package* has been developed to meet the following general objectives:

1. Provide all personnel involved with PPBS with knowledge of the fundamental concepts of the PPBS process.
2. Provide personnel engaged in a particular PPBS function (e.g., Planning) with knowledge of the *specific concepts* basic and facilitating to accomplishment of that function.
3. Provide personnel engaged in a particular PPBS function with *detailed guidance* to assist in accomplishing the procedures of that function successfully.
4. Provide all personnel involved with PPBS ready access to concept knowledge and/or guidance components for any and all PPBS functions.

The training package that evolved to meet those objectives consists of two basic types of materials:

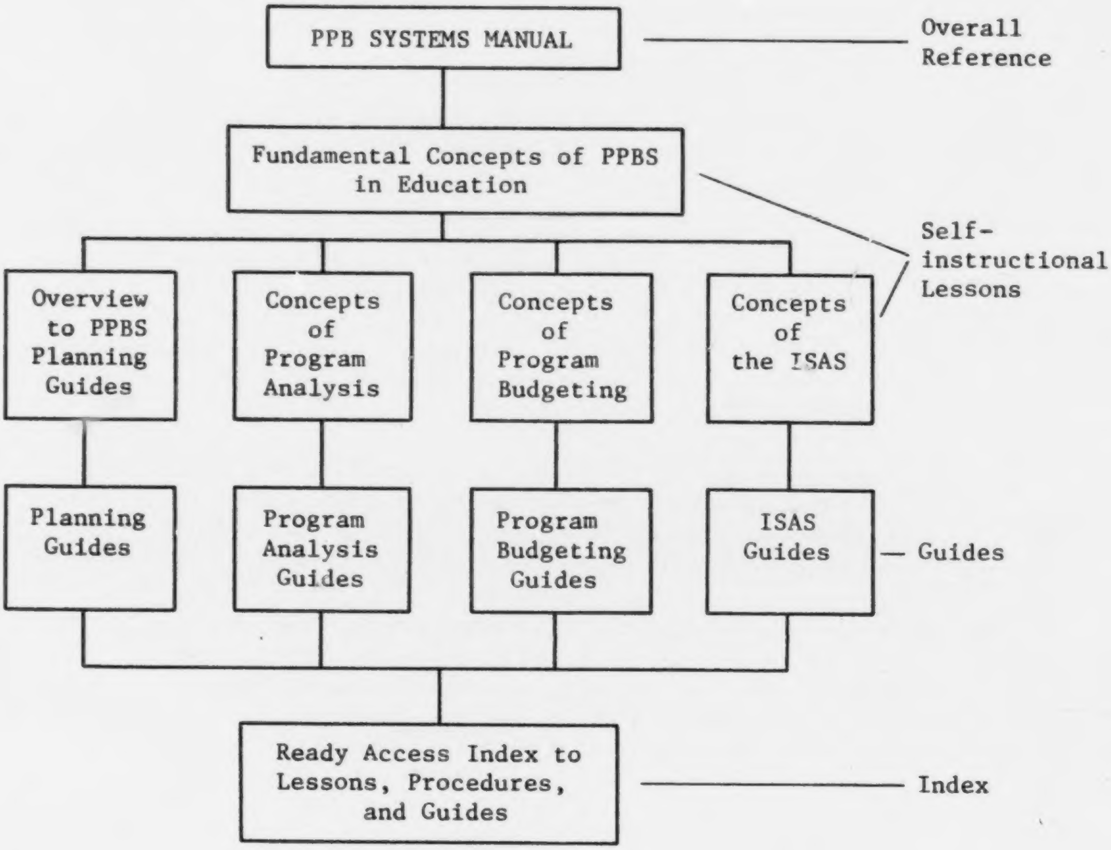
Self-instructional lessons - such as this one, designed to establish concept knowledge.

Guides - consisting of forms, worksheets, checklists, examples, and very detailed instructions for their completion.

The *self-instructional lessons* are charged with presenting those concepts of the various PPBS functions that facilitate understanding and working within the particular function.

The *guides* are charged with aiding and documenting the actual performance required by the procedures of the various PPBS functions.

After a long process of development, testing, and revision, the following training components exist: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HOW THE TRAINING PACKAGE IS USED

The fact that you are working through this lesson is evidence that your school district has committed to a total or partial implementation of PPBS. Your district may have opted to "begin at the beginning" with the Planning function, and work through Programming, Budgeting, and System Evaluation, which represents total implementation of the model. Or, your district may have opted only to implement the PPBS function which will best meet its immediate needs -- perhaps Budgeting or Programming.

No matter what function of PPBS is being implemented, a few simple conventions serve to direct effective use of the training package.

Assuming that a school district is committed to some degree of implementation of the PPBS model:

1. *All personnel* work through the self-instructional lesson, *Fundamental Concepts of PPBS in Education.*

2. Depending on the PPBS function being implemented, district personnel who will perform actual work on the function procedures work through the self-instructional concept lesson for that function.

   For example, if ISAS is the function being implemented, all personnel who will perform ISAS tasks work through *Concepts of the ISAS.*

3. All personnel who have completed 1 and 2 are provided flowscript and narrative summary of the specific procedures of the PPBS function being implemented.

4. All personnel who have completed 1 and 2 are provided PPBS function guides *according to the role they are filling* in implementing the function.

   For example, if Programming is the function being implemented, then those filling the *Program Element Coordinator* role would be provided the guide for that role upon completing the PPBS overview and Programming concept lessons.

The staff of the Western New York PPBS Project can provide on-site consultation, especially during the initial phases of implementation. It should be noted, however, that the training package has been designed to be as "self-administering" as possible, in order to free the staff from massive amounts of consultation with individual districts implementing the model.

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FOR FURTHER STUDY ...

The following references provided input for this overview lesson on the concepts of PPBS as they pertain to educational planning and management.

Chambers, George A., "The Concepts of Problems of PPBS," *State School Systems Development Journal*, September 1967.

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Planning, Programming, Budgeting System Manual, California State Department of Education, 1970.

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Western New York School Study Council, *Program Budgeting Notes*, State University of New York at Buffalo, 1968-70.

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W.N.Y.
PPBS
PACKAGE
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PLANNING OVERVIEW AND PERFORMANCE GUIDES

WESTERN
NEW YORK
PPBS MODEL

An Operational Model for the Application of Planning-Programming-Budgeting Systems to Local School Districts

Post-Pilot-Test Version

PLANNING OVERVIEW AND PERFORMANCE GUIDES

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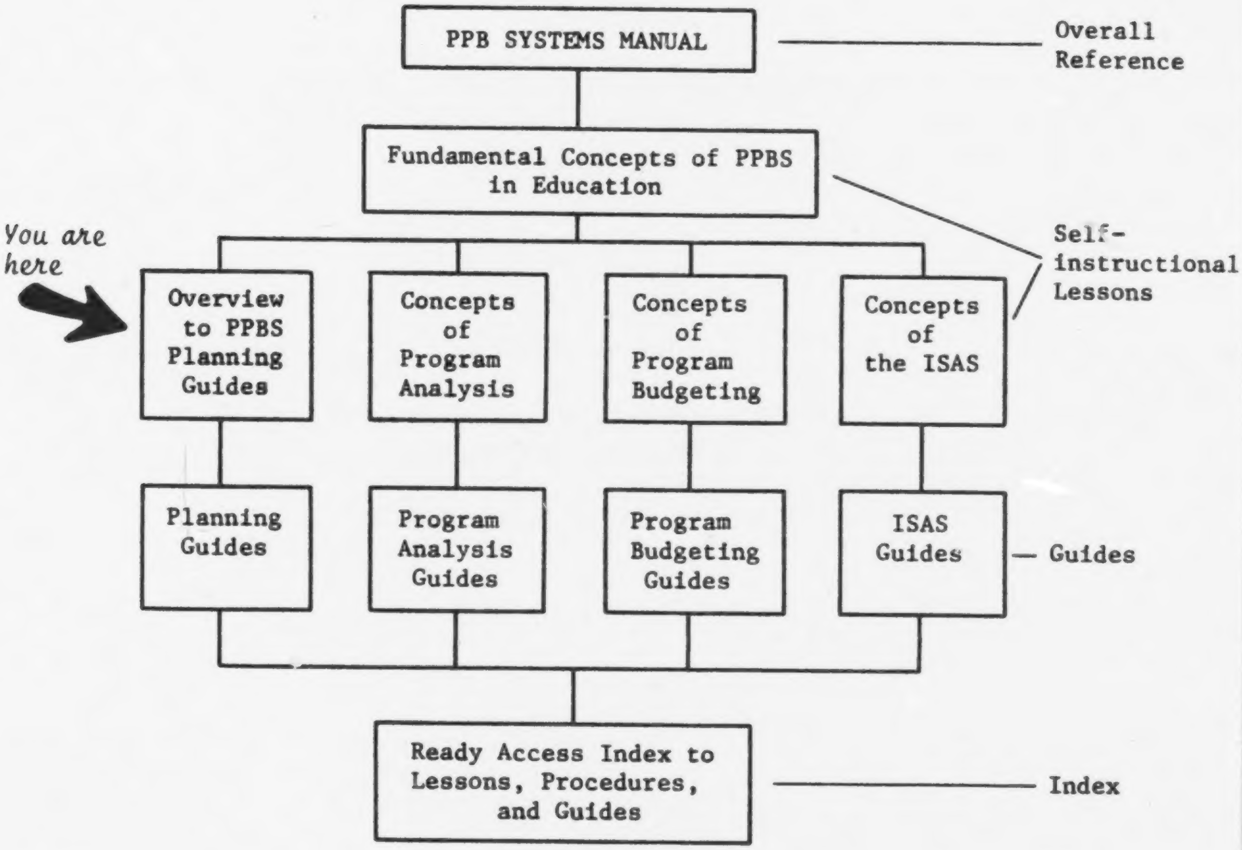
OVERVIEW TO PPBS PLANNING GUIDES

for use by the

Assistant Superintendent
Research/Planning

School Business Administrator

WESTERN NEW YORK PPBS TRAINING PACKAGE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PLANNING AS A PPBS FUNCTION: WHAT AND WHY

> "Planning - The selection or identification of the overall, *long-range* objectives of the organization."
>
> \- Glossary, *PPBS Manual*

Planning, as a function of PPBS, is the process of setting long-range goals and objectives for the school district. The products of Planning are statements of direction and focus of school district activity over a number of years, or "where we are going" on a long-range basis.

The process of Planning consists essentially of two steps:

1. Determining the school district's current demographic, financial, and curricular status.
2. Forecasting demographic, financial, and curricular status for a number of years into the future.

The rationale for these two steps is that if "where we are now" and "what will happen along the way" can be determined and forecast, then the probability of arriving at "where we are going" is increased. In the context of PPBS, Planning is based on collection and analysis of data relevant to the establishing of long-range objectives. This serves to make the decision making and forecasting that are part of Planning more objective and systematic, to the mutual benefit of the school system and the community.

Why Planning? From the above paragraphs, obviously the basic whys of Planning are:

- To find out where the school district is now.
- To describe where it should be at some future point.
- To predict what will happen to aid or retard progress over the specified time frame.

This is rather like saying, "Planning is a good thing," or "Eat your Planning and you'll grow up strong." To present more specific and meaningful

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benefits of Planning (as described in the PPBS Procedures developed by the Western New York PPBS Staff), we offer a brief description of each Planning procedure and its discrete benefits. Procedures are presented in actual performance order.

	Planning Procedure	Benefit
1	Provides for identification of community influentials -- those persons in the school district population who serve as opinion leaders.	Establishes a valuable source of community residents for inclusion on District Planning Council and on ad hoc citizen committees.
2	Provides for actual placement of community influentials into the Planning process at the district level through regular inclusion on the District Planning Council.	Establishes two-way school-community communication in the Planning process. Assures community involvement in educational planning.
3-4	Provides techniques for making a statistically valid determination of community opinion on school-community issues.	Generates valid, reliable opinion data to be used in making long-range forecasts.
5	Provides techniques for regular sampling of national opinion on educational trends and developments.	Allows constant, inexpensive monitoring of opinion beyond the district boundaries.
6	Provides techniques for forecasting the school district resident population for five years by total and by population characteristics such as sex, age groups, etc.	Generates accurate population trend data required for setting long-range district objectives.
7	Provides techniques for determining and forecasting district educational level, income, and occupational needs.	Generates accurate data for Planning of curriculum and design of adult education programs.
8	Provides techniques for determining and forecasting actual school district enrollment for five years.	Supplements #6 and 7 as important data sources needed in setting long-range objectives, and checking on the relevancy of those objectives.

	Planning Procedure	Benefit
9 - 12	Provide techniques for forecasting district revenue from Federal aid, state aid, and local sales tax for the next five years.	Provides accurate data as to probable district revenue from specific sources as input to Planning.
13	Provides techniques for determining and forecasting the district's full property valuation for the next five years.	Facilitates #14, estimating school district revenue by establishing base data required.
14	Provides techniques for determining and forecasting total district revenue for the next five years based on data generated in earlier procedures.	Allows check of revenue forecast against community opinion on school expenditure, and forecast of district revenue based on rational data collection and analysis.
15	Provides techniques for determining and projecting school building needs for each of the next five years, based on a square-foot-per-student ratio.	Allows prediction of building needs up to five years in advance of actual need.
16	Provides techniques for summarization of future capital outlay and debt service expenditures for the next five years.	Summarizes and forecasts payments based on schedule to which the district is currently committed.
17	Provides logical steps to be followed in planning and executing a district standardized testing program as a continuing source of input as to student achievement and need.	Establishes on-going data source of student achievement for Planning and Programming phases of the PPBS cycle.
18	Provides logical steps in handling annual results of standardized testing program (#17).	Assures maximum use of results, immediate routing to those concerned with the results.
19	Provides logical steps in screening Kindergarten students for learning disabilities.	Allows early identification and planning of special programs according to number and severity of disabilities.

	Planning Procedure	Benefit
20-21	Provides for statistically valid determination of pupil and professional staff opinion on educational issues, community issues.	Establishes important on-going data source for Planning and Programming phases of the PPBS cycle.
22-23	Provides techniques for preparation of annual summary reports of student government and professional staff committee and council reports.	Provides internal school data in summary form for consideration in Planning and Programming phases of the PPBS cycle.

Planning, as a function of PPBS, results in identifying and utilizing data sources representative of the district community, students, and professional staff. It results in identification and forecasting of factors that exert great influence on the effectiveness and efficiency of the school system. The "crystal ball" aspect of the Planning forecasts is minimized by the objective, systematic manner in which data are collected and used.

It is important to remember that Planning, like all PPBS functions, is not intended to stand alone, but rather to serve as part of the total PPBS cycle which aims at developing, and constantly improving, relevant educational programs that are response to the particular needs of the community.

WHAT IS THE PURPOSE OF THESE GUIDES?

The two Planning Guides were developed to aid in the accomplishment of certain Planning procedures identified as critical to the total Planning process. Generally, the guides consist of instructions, forms, worksheets, models, and examples which are intended as performance aids for the user. If the guides are followed carefully, and all directions and instructions are taken literally, they will result in satisfactory accomplishment of the specified Planning procedures.

However, the Planning Guides are *not intended* as performance dictates but rather as performance models. Like all models, they should be employed only to the degree that they prove helpful. This, of course, can only be determined by the individual user. In most situations, the user will probably opt to follow the guide quite closely, but there may be instances where the user decides to modify a portion of the guide or to accomplish the procedure in another manner. Both the philosophy and design of the Western New York PPBS model provide latitude for doing so, depending upon the individual circumstances.

WHO USES THE PLANNING GUIDES?

Planning Guide #	User	Procedure	Planning Product
1	Asst. Superintendent for Research/Planning	1	Community Influentials identified and listed.
		4	Community Opinion Questionnaire constructed and administered.
		6	District resident population forecast completed.
		7	District occupational, income, educational needs collected and forecast.
2	School Business Administrator	10	District long-range state aid revenue forecast.
		13	District full property valuation forecast.
		14	Total district revenue estimated and forecast.

The "user" of each guide is that person who is charged with most of the tasks required to accomplish the specified Planning procedures. While roles other than the user are involved in the specified procedures, the user bears the responsibility for the final product, and so must act as administrator and coordinator between the various roles involved.

WHERE DO THESE GUIDES FIT INTO THE TOTAL PLANNING PROCESS?

In the Planning phase of the Western New York PPBS Model, there are some 28 separate procedures to be accomplished. The Planning Guides focus on the seven most basic and critical of these 28 procedures. The guides serve to describe certain procedures to a greater level of specificity and detail than the PPBS Manual, and further, provide performance aids for the accomplishment of those procedures. In deciding which Planning procedures to guide, the Western New York PPBS staff selected those procedures which were:

1. Critical to the success of the total Planning effort.
2. Not described to a sufficient level of specificity in the PPBS Manual to allow their accomplishment.

The seven procedures guided in the Planning Guides are procedures 1, 4, 6, 7, 10, 13, and 14. All other procedures can be accomplished by means of the descriptions and instructions contained in the PPBS Manual. Obviously, some "hopscotching" from guides to manual will be required, but this should cause little difficulty in that each procedure has a distinct starting point, performance sequence, and product.

In working through the Planning procedures, consult the two *guides* for directions and assistance in accomplishing the specified procedures (1-4-6-7-10-13-14) and consult the *PPBS Manual's section on Planning procedures* in accomplishing all other Planning tasks.

HOW DOES THE DESIGN OF THE PLANNING GUIDES HELP WITH PLANNING?

Each of the Planning Guides is designed for use by a *single specific role* involved in Planning activities. The role selected is the one which carries more responsibility -- requires more performance -- than the other roles according to analysis of the procedures. Accordingly:

Planning Guide #1 -- Assistant Superintendent for
Research/Planning

Planning Guide #2 -- School Business Administrator

So, each guide is designed to facilitate the *actual Planning tasks* required of the above roles, and further, to aid in *administration and coordination* of tasks performed by other roles in accomplishing the various Planning procedures. A *flow chart* at the beginning of each guide specifies tasks to be performed, role responsibility for performance, and performance sequence. Consider it an administrative road map. Work documents, in the form of *checklists, worksheets,* and *PPBS forms,* document the tasks performed by the various roles and serve as communications vehicles between the various roles from task to task and procedure to procedure.

The purposes of each guide, then, are to serve as a *performance aid* to the dominant role, and to serve as an *administrative aid* to the dominant role in coordinating the efforts of the other roles involved in the specific Planning procedures.

HOW ARE THE PLANNING GUIDES USED MOST EFFECTIVELY?

The Planning Guides are most effective if these suggestions are followed:

- Read through this overview narrative before attempting to use the Planning Guides.
- Quickly read through the entire guide before beginning any Planning activity.
- Obtain appropriate blank worksheets, checklists, and forms from the Western New York PPBS staff before beginning any Planning activity. Those contained in the guides are for illustrative purposes only.
- Take the directions in the guide literally. If the guide provides item-by-item instructions for completion of a form or worksheet, complete the worksheet item-by-item as indicated.
- Remember that the Planning Guides only focus on *seven* of a total of 28 Planning procedures. The remaining 21 procedures are to be accomplished according to the instructions provided in the PPBS Manual.

The level of specificity in the Planning Guides varies from *precise* step-by-step instructions for generating certain Planning products to *general* suggested guidelines and models to assist the user in developing the required Planning product. The decision as to the level of specificity in various sections of the guides is based upon the *criteria* specified for the specific planning product being generated -- the more precise the product criteria, the more specific the guidance.

WHAT ARE THE PRODUCTS GENERATED USING THE PLANNING GUIDES?

PLANNING GUIDE #1 - PLANNING PROCEDURES 1, 4, 6, and 7

User: Assistant Superintendent for Research/Planning

Products: Procedure 1 - List of community influentials established and placed in the district data file.

Procedure 4 - Community Opinion Questionnaire produced and administered to district population.

Procedure 6 - District resident population total and characteristics forecast for the next five years.

Procedure 7 - District educational level, income level, and occupational needs determined and forecast for the next five years.

Procedure 1: Identifying Community Influentials

This procedure is based upon the assumption that influence in a community is not evenly distributed among all the citizens of a particular community. Accepting this, it follows that it would be in the interest of school district officials to be aware of which members of a community are more influential than others. A review of the research in this area suggests that there are two popular techniques for identifying such individuals: the reputational method and the decision-analysis method. This procedure incorporates both methods and adapts them for regular execution as an element of the Planning component. The procedure provides for a biennial execution of the reputational method and utilizes this technique to identify influentials among the active private and civic organizations of the community. The decision-analysis technique is to be applied continuously as one member of the staff follows the progress of discussions of one or two community issues with the aim of identifying members of the community influential in the resolution of those issues.

Once identified, the names of community influentials are placed in the district's community data files. These files are reviewed at regular intervals when vacancies on the District Planning Council must be filled, whenever ad hoc citizens committees are being formed to study particular school district issues, or for the purpose of conducting a special survey of community opinion on particular educational issues.

Procedure 4: Administering Community Opinion Questionnaire (COQ)

This procedure details steps to be followed in conducting a community survey. It contains suggested steps to be followed in drafting a survey instrument, estimating its reliability and validity, securing and training a survey team, conducting the survey, and analyzing the data collected.

Procedure 6: Forecasting School District Resident Population

This procedure details steps for making five-year forecasts about the character of the population of the school district. The information generated by the method of forecasting developed in this procedure includes an estimate of the total population of the community for each of the next five years, and a breakdown of the population by the following groups: sex, age groups, and racial characteristics. The procedure includes reference to specific sources of information which are used as the basis for the forecasting and to complement the procedure; forms and worksheets for use in making the forecast are provided.

Procedure 7: Determining Educational Level, Family Income, and Occupational Needs of the School District Community

This procedure details steps for making five-year projections of local community educational level, family income, and occupational needs. The steps included supply information about what sources are available to make such projections and from whom these sources can be obtained. Forms to assist the user in making these projections are included.

PLANNING GUIDE #2 - PLANNING PROCEDURES 10, 13 and 14

User: School Business Administrator

Products: Procedure 10 - District income from state-aid funds forecast for the next five years.

Procedure 13 - District full property valuation forecast for the next five years.

Procedure 14 - District revenue from all sources estimated and forecast for the next five years.

Procedure 10: Forecasting State Aid

This procedure details steps to make projections about the income that the school district is likely to receive during each of the next five years from state aid. It contains references to specific sources of information and data needed to make the projection. Forms are included to assist the user at each step of the projection process.

Procedure 13: Forecasting Full Property Valuation

This procedure details the steps to be followed in making a projection of the school district's full property valuation for each of the next five years. It takes into account the fact that most school districts are not coterminous with single tax districts. Sources of information and data upon which to base the projections are cited. In addition, forms which assist the actor at each step of the projection process were developed and are contained in Appendix D.

Procedure 14: Estimating School District Revenue

This procedure brings together the information generated from the execution of several other procedures. The projections of Procedures 9-12 are brought together to provide an estimate of school district revenue for each of the next five years. The projections of Procedure 13 (full property valuation forecast) and a projection of full property tax rates allows the actor in Procedure 14 to estimate the revenue to be raised locally for each of the next five years. This last step is checked against information gathered through the execution of Procedure 4 (Administration of Community Opinion Questionnaire) about citizen attitudes toward various changes in the local property tax rates. These various forecasts are combined to provide school district leaders an estimate of total revenue for each of the next five years. Forms were developed along with Procedure 14 to assist the actors in each step of the projection process.

SPECIAL NOTE:

The various projections and forecasts of revenue are not expected to be accurate to the nearest penny. Even those only vaguely familiar with the vagaries of school finance will realize the impossibility of such accurate predictions. These procedures combine rational data collection and summarization procedures to buttress the intuition and judgment of the officials making the projection. While the projections are not expected to be precise, they are expected to be important inputs into the long-range planning process of the school district. Long-range plans which are financially unrealistic will need to be altered as revenue data is checked. The impact of suggested changes in Federal, state, or local aid to education should be more readily apparent to school officials if they have revenue projections already prepared. Strategies for continued financing of educational programs should be more rationally devised if the future educational and financial impact of those programs can be determined with some accuracy.

When the national Government and the state governments alter their present aid to education policies, and when more sophisticated projection techniques are developed for use by school districts, revenue projections can be made more accurately than those which these procedures will produce. However, until that time, even the figures generated here should be valuable inputs into the planning process of any local school district.

PLANNING GUIDE #1

for use by the

Assistant Superintendent
for Research/Planning

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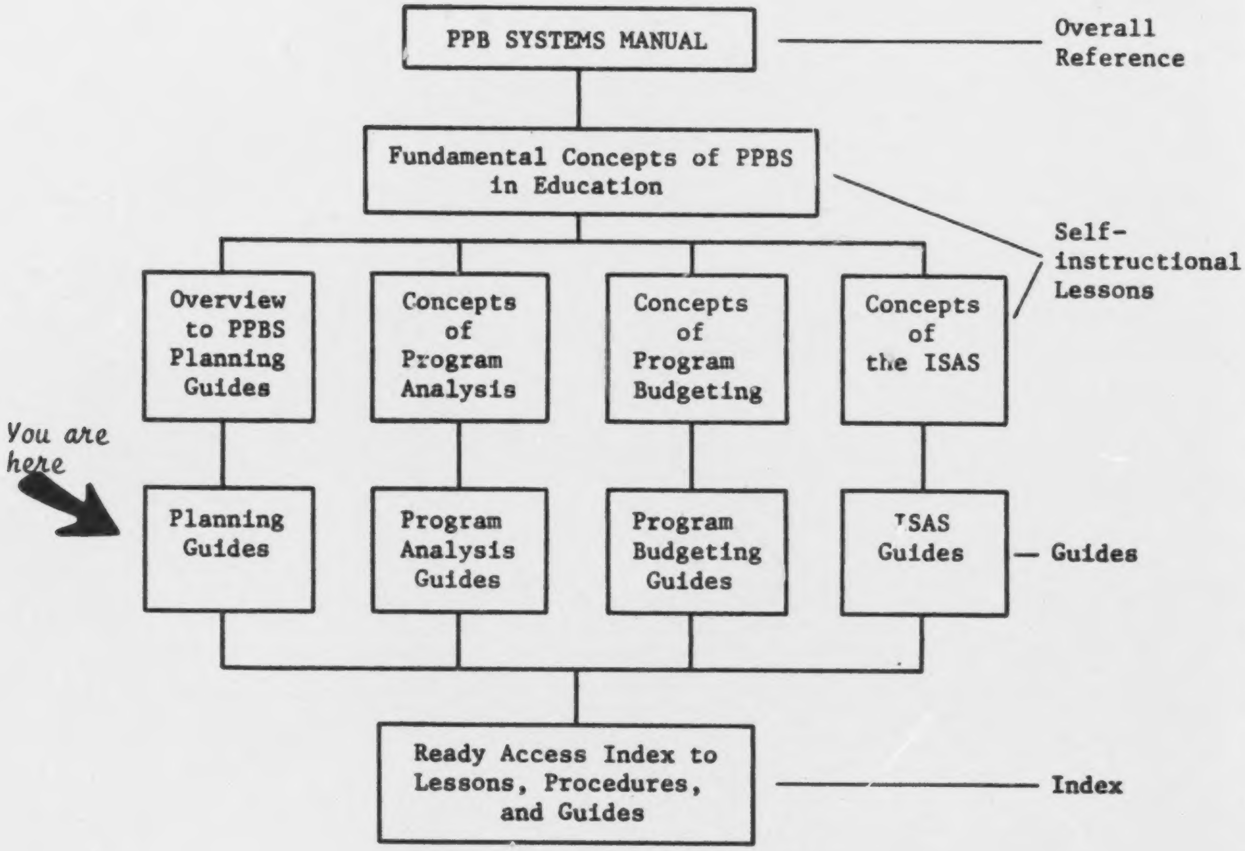
WESTERN NEW YORK PPBS TRAINING PACKAGE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PURPOSES OF THIS GUIDE

Planning Guide #1 is the first of two guides designed to facilitate the accomplishment of PPBS Planning procedures that have been identified as critical to the total Planning process.

Guide #1 is designed for use by the *Assistant Superintendent for Research and Planning* in coordinating the accomplishment of the following Planning procedures:

1 - Identifying Community Influentials.

4 - Administering the Community Opinion Questionnaire.

6 - Forecasting District Resident Population.

7 - Determining Educational/Income/Occupational Needs of the Community.

A *work-flow diagram* at the beginning of the guidelines for each procedure indicates the roles involved in accomplishing the procedure, the tasks each must perform, and the performance sequence that must be followed. It is a "road map" through the work required by the various procedures -- to serve as a reference to the user of the guide in coordinating work by the various roles. While more than one role may be involved in a procedure, it is the responsibility of the Assistant Superintendent for Research and Planning to coordinate the efforts of all roles through the entire performance sequence.

This guide is a series of *worksheets, guides, and instructions* for use by the various roles involved in the specified Planning procedures. The subject of each worksheet or discrete work document, and the role for which it is designed, are indicated in the upper right corner to assist coordination of effort by the various roles. Administrative instructions for the Assistant Superintendent for Research and Planning are also included at various points throughout the guide.

Worksheets are included in this guide for illustrative purposes only. They can be obtained in quantity from the Western New York PPBS staff.

PLANNING PROCEDURE 1 OVERVIEW: IDENTIFYING COMMUNITY INFLUENTIALS

Planning Procedure 1 is accomplished by the following roles, performing the tasks described in the sequence indicated:

Asst. Superintendent for Research/Planning	Nominating Panel	Organization Nominating Panels
1. Selects and appoints Nominating Panel.		
2. Identifies local organizations which influence local affairs.		
	3. Nominates 10-12 persons from each organization listed.	
4. Selects 4-6 persons from list generated in #3 from each organization's list to serve as Organization Nominating Panels.		
		5. Nominates, in rank order, 10 most influential persons in the organization represented.
6. Computes rank order of 10 most influential persons in each organization based on individual rankings from #5.		
7. Selects and monitors two to four community or school issues.		
8. Includes names of persons instrumental in resolving issues on list of community influentials.		
9. Provides list to Board of Education every two years for their uses.		

THE ASSISTANT SUPERINTENDENT FOR RESEARCH/PLANNING COORDINATES ALL ROLES INVOLVED IN PROCEDURE 1 ACCORDING TO THE FOLLOWING GUIDELINES.

IDENTIFYING COMMUNITY INFLUENTIALS: Flow Chart Steps 1 and 2

Planning Procedure 1 initially charges the Assistant Superintendent for Research and Planning with establishing a *Nominating Panel* to function during odd-numbered years. The general requirements for the Nominating Panel are:

- Consists of four to six persons.
- Members must have knowledge of local community affairs.
- Members must have knowledge of local organizations that exert influence on local community affairs.

The *meeting agenda* on the following page has been designed to guide the efforts of the Nominating Panel in identifying the 1-10 most influential members of the various local organizations of influence.

The first tasks of the Assistant Superintendent for Research/Planning under Planning Procedure 1 are then to:

1. Establish a Nominating Panel.
2. Establish a list of local organizations of influence.
3. Provide the Nominating Panel with the *meeting agenda* and *list of organizations* of influence.
4. Monitor the completeness of the product of the Nominating Panel.

Meeting Agenda
Nominating Panel

AGENDA - NOMINATING COMMUNITY INFLUENTIALS: Flow Chart Step 3

As part of the Planning activities of the school district, you have been asked to serve on a *Nominating Panel*. The purpose of the panel is to assist district personnel in establishing a list of community influentials -- persons in the community whose actions and opinions have weight on the resolution of local issues.

In order to fulfill its purposes, the Nominating Panel must:

- Review the list of civic, business, social, and academic organizations which *exert influence* on local affairs.
- Identify those persons *influential* within each organization listed.
- Nominate the *most influential* persons within each organization for inclusion on the district list of community influentials. (Ideally, 10 to 12 persons should be nominated from each organization.)
- Record the nominations, categorizing them by organization, and forward them to the Assistant Superintendent for Research/Planning.

IDENTIFYING COMMUNITY INFLUENTIALS: Flow Chart Steps 4 and 5

Based on the input of the Nominating Panel, the Assistant Superintendent for Research/Planning is charged with establishing an *Organization Nominating Panel* for each organization listed. The function of each panel, as indicated in Step 5 of the flow chart, is to identify the 10 *most influential persons* in its own organization.

The general requirements for the Organization Nominating Panels are that they:

- Consist of four to six persons from each organization of influence listed in flow chart Step 2.
- Their members must have been identified as influential by the original Nominating Panel in Step 3.

The four to six members from each influential organization use the *ranking worksheet* on the following page to identify the most influential members of their organization in order of amount of influence. They may include themselves in the ranking.

The products of the Organization Nominating Panels serve as direct input for flow chart Step 6, which is performed by the Assistant Superintendent for Research/Planning.

Ranking Worksheet
Organization Nominating Pan

LISTING COMMUNITY INFLUENTIALS IN RANK ORDER: Flow Chart Step 5

You have been selected to assist school district personnel with district Planning activities by serving on an *Organization Nominating Panel.* The function of the panel is to specify the relative rank order of those persons within this organization who have been identified as community influentials.

To accomplish *your* role as a part of the Organization Nominating Panel, you must perform the following tasks:

- Examine the listing of community influentials selected from the local organization which you represent on the panel.
- Identify, from the list, the person with the most influence in your organization. Enter his name as #1 in the spaces provided below.
- Consider the names remaining on the list of community influentials from your organization. Again, identify the person with the most influence. Enter his name as #2 below.
- Repeat the procedure, eliminating those chosen as most influential each round from consideration until you have listed ten members of your organization in rank order in the spaces below.

> Forward the completed rank order listing to the Assistant Superintendent for Research/Planning.

Panel Member's Name: ______________________________

Organization Represented: ______________________________

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________
7. ____________________
8. ____________________
9. ____________________
10. ____________________

SUMMARY RANK ORDER LISTING OF COMMUNITY INFLUENTIALS - Flow Chart Step 6

The work performed by the *Nominating Panel* and *Organization Nominating Panels* serves as *input* to the Assistant Superintendent for Research and Planning in construction of a *summary rank-order list of community influentials* for inclusion in the community data file.

Construction of the summary list requires performance of the following steps:

1. Collect all *ranking worksheets* generated by Organization Nominating Panels.
2. Sort them according to *civic/community organization represented.* (E.g., place all Kiwanis rankings together, all Chamber of Commerce rankings together, etc.)
3. Working from the individual ranking worksheets for each organization, compute *total influence scores* for each person listed on the worksheets according to the following scale:

WORKSHEET RANKING:	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
POINTS:	1	2	3	4	5	6	7	8	9	10

EXAMPLE: Four members of the Organization Nominating Panel representing the Chamber of Commerce rank two of the listed influentials as follows on their individual ranking worksheets.

Winters - ranked 4th, 6th, 5th, and 8th.

Bajek - ranked 2nd, 2nd, 4th, and 3rd.

Using the point conversion table above, their respective summary scores would be -

Winters - 4, 6, 5, 8 - a total of 23

Bajek - 2, 2, 4, 3 - a total of 11 -- most influential

4. When total scores for each person listed in each organization represented have been determined, rank the influentials in each organization from 1 to 10 on the basis of total score -- *#1 being the person with the lowest total score,* and so on.
5. Place the summary rank order listing of influentials for each organization in the community data file.

STUDY OF SCHOOL/COMMUNITY ISSUES: A MODEL - Flow Chart Steps 7-8

Planning Procedure 1 charges the Assistant Superintendent for Research/Planning with "Selection and continuous study of two to four current community of school issues." The purpose of this task is to *supplement* and *check on the accuracy* of the list of community influentials established earlier in the procedure by monitoring the behavior of those persons involved in the resolution of community/school issues.

The following guidelines are presented as a model for accomplishing the required study of community/school issues. Note that they are presented as a model, *not* a dictate of how the study must be performed.

1. Select two to four current school/community issues for study.

Example: School/Community Issues

> Local elections, neighborhood redevelopment projects, zoning change requests, municipal employee wage negotiations, school bond issue, wage negotiations, school construction programs, etc.

2. Establish a file (a large manila envelope or folder will suffice) for *each issue selected*. Clearly label each file with the title of the specific issue it serves.
3. Attend public meetings on the issues selected. Obtain minutes of each meeting or make notes of the proceedings.
4. Clip all news items relevant to the issues under study from the local newspapers.
5. File the products of #4 and #5 in the appropriate issue file.
6. Note the position which emerges from final resolution of each issue.
7. Review the issue file to determine persons who held the position that was ultimately accepted upon resolution of the issue.
8. If they are not already listed, include persons identified in #7 as community influentials.

A model worksheet for collecting required data in the course of a study of community/school issues follows on the next page.

DATA COLLECTION WORKSHEET

ISSUE: ____________________

Input Source: ☐ Public meeting ☐ Newspaper article ☐ News broadcast

☐ Other: ____________________ Date: __________

Position on the Issue:

Persons Voicing or Supporting that Position:

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________
7. ____________________
8. ____________________
9. ____________________
10. ____________________
11. ____________________
12. ____________________
13. ____________________
14. ____________________
15. ____________________

Include those additional community influentials identified on the Data Collection Worksheet on the list generated in Flow Chart Step 6.

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PLANNING PROCEDURE 4: ADMINISTERING COMMUNITY OPINION QUESTIONNAIRE

Planning Procedure 4 is accomplished by the following roles, performing the tasks described in the sequence indicated:

Asst. Supt. for Research/Planning	Members of District Staff	Asst. Superintendent Personnel Services	Survey Team
1. Surveys District Staff for COQ input.			
	2. Suggest items/content for COQ.		
3. Constructs Data Summary Tables for COQ.			
4. Constructs tentative COQ prior to March 1 of each even-numbered year.			
	5. Suggest revisions to tentative COQ.		
6. Revises COQ based on input from #3.			
		7. Recruits Survey Team.	
8. Trains Survey Team in administering COQ; assigns territory, households, and schedule of interviews.			
9. Informs community of survey via local media.			
			10. Conducts COQ unde supervision of Asst. Supt. for Research/Planning
11. Coordinates tabulation of COQ responses and transfer to Data Summary Tables prepared in #3.			
12. Provides Data Summary Tables to District Planning Council for August meeting.			

COMMUNITY OPINION QUESTIONNAIRE (COQ) - Flow Chart Step 1

Prior to March 1 of each even-numbered year, the Assistant Superintendent for Research/Planning has the responsibility of *constructing a Community Opinion Questionnaire (COQ)*, and *coordinating its administration*. The purpose of the questionnaire is to collect various data for input to the District Planning Council. The focus of the COQ, as evidenced by items contained, will vary with the situation, contingent upon what kind of information the district planners want the questionnaire to obtain.

Generally, a COQ collects information from residents of the school district in the following five areas:

1. The Child and the School.
2. The Parent and the School.
3. General Opinion about the School.
4. Personal Data Inventory.
5. Other: ______________________________

The COQ is designed to elicit responses from parents with children in the district schools, parents with children in other schools, and residents with no children currently in the public schools. Not all sections of the COQ are completed by all respondees, and the *Instructions* section must clearly specify who responds to what sections.

CONSTRUCTION OF THE COQ

As previously noted, the item content and focus of the COQ will vary with the district situation. The following general guidelines and examples are a model for construction and administration of a COQ, which should prove helpful in all situations, but they are not intended as a "how-to-do-it" dictate.

The basic model for construction of a COQ is to:

1. Determine what data are to be collected.
2. Construct summary tables to display the data to be collected.
3. Construct items to elicit the desired data.
4. Administer the COQ to the selected resident sample.
5. Summarize the data collected on the tables constructed in #2 above.

1. DETERMINE WHAT DATA ARE TO BE COLLECTED - Flow Chart Steps 2 and 5

The focus of the COQ, in any district, should be *what the district planners need/want to know*. This is determined by surveying members of the district staff prior to construction of the COQ. On the following page, you will find a special worksheet that has been designed to:

a. Collect input from the district staff and District Planning Council as to what data the COQ should collect.

b. Collect suggested revisions from the district staff to the tentative COQ drafted later in the procedure.

The Assistant Superintendent for Research/Planning distributes the COQ Input/Revision Worksheet to members of the district staff as the first step in constructing a COQ, specifying that they are to provide suggested items in the five COQ sections by checking the "COQ Items for Inclusion" box.

Flow Chart Steps 2 and 5

District Staff

COQ INPUT/REVISION WORKSHEET

SUBJECT OF WORKSHEET: ☐ COQ Items for Inclusion ☐ Revision of COQ

NAME: ______________________ POSITION: ____________

Instructions:

IF →	THEN
The worksheet is being used to suggest items for inclusion on the COQ.	Describe the section* of the COQ and *suggested item(s)* below.
The worksheet is being used to suggest revisions to the tentative COQ draft.	Describe the section of the COQ and *suggested revision(s)* below.

*Sections of the COQ:
Instructions.
1. Child and School.
2. Parent and School.
3. Opinion.
4. Personal Data Inventory
5. Other.

COQ SECTION AND SUGGESTED ITEMS/REVISIONS

(Continue on the back if necessary)

2. CONSTRUCT SUMMARY TABLES TO DISPLAY THE DATA TO BE COLLECTED
Flow Chart Step 3

When all COQ Input/Revision Worksheets have been returned by members of the district staff, the Assistant Superintendent for Research/Planning examines them to determine the kinds of data that the district planners want the COQ to collect in its four sections.

Once this is determined, the next step is to construct blank tables that will serve to summarize and display the data to be collected by the COQ.

THE SUMMARY TABLES ARE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE COQ. *Rationale:* The summary tables are the desired end product of the COQ. The questionnaire itself is a vehicle for their construction. By constructing the tables prior to the COQ, they can serve as guides to the effective design of the questionnaire.

EXAMPLE: If the district planners want to know how the resident school district population feels about *paying higher taxes* to continue the present level of educational services, the summary table might look like this:

Table 1. Willingness of Citizens with Children in School to Pay Higher Taxes to Continue Present Level of Educational Services.

Categories	Number Responding	Affirmative Responses	Negative Responses	No Opinion
1. Among citizens with children in school				
a) Public School				
b) Parochial School				
c) Private School				
Totals				
2. By Occupation				
a) Blue Collar				
b) Professional				
c) Management				
d) Self-employed				
Totals				
3. Voting				
a) Last Budget Vote				
1) Did vote				
2) Did not vote				
Totals				

The number of tables constructed will vary with the situation, depending on the number of questions district planners have about resident opinion.

3. CONSTRUCT ITEMS TO ELICIT THE DESIRED DATA - Flow Chart Step 4

This task, based on suggestions obtained from the survey of district staff members and guided by the blank summary data tables constructed in task #2, is performed for each of the four general sections of the COQ. That is, appropriate items are constructed to elicit the desired opinion data in these areas:

- The Child and the School.
- The Parent and the School.
- General Opinion.
- Personal Data Inventory.
- Other: ______________________________

SAMPLE ITEMS - COQ Section 1 - *The Child and the School.*

1. In general, to what degree are you satisfied with the school which your oldest child is attending?

_____1) Very well satisfied.
_____2) Satisfied.
_____3) About half and half.
_____4) Dissatisfied.
_____5) Very much dissatisfied.
_____6) I have no opinion.

4. Do you think your child feels that he is "one of the gang" in his school?

_____1) Yes, I think he feels that he "belongs," that he "counts" for something, that he is wanted.
_____2) I am not sure.
_____3) No, I think he feels that he is more or less a "nobody" or an outsider.

25a. Does your child's school have as much equipment (library books, moving picture equipment, gymnasium and playground equipment, laboratory equipment etc.) as it needs?

_____1) It has everything it needs.
_____2) It has most of what it needs.
_____3) It has very little of what it needs.
_____4) I have no opinion.

b. If you think the school needs more equipment, tell what it needs:

____
____
____

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SAMPLE ITEMS - COQ Section 2 - *The Parent and the School.*

26a. Are you treated as well as you think you ought to be treated when you visit the school?

_____1) Yes.
_____2) Sometimes.
_____3) No.
_____4) I have never visited the school.

b. If you don't like the way you are treated when you visit the school, tell what you don't like: ______________________________

27. How many of the teachers welcome your visits to your child's school?

_____1) All.
_____2) Most.
_____3) About half.
_____4) Few.
_____5) None or almost none.
_____6) I have never visited my child's school.

29a. Do you know as much about your child's school as you would like?

_____1) Yes.
_____2) No.
_____3) Uncertain.

b. If there are things you would like to know about your child's school, tell what they are: ______________________________

30. Do you feel that your child's school does a good job of telling you about the work of the school?

_____1) Very good.
_____2) Good.
_____3) Fair.
_____4) Poor.
_____5) I have no opinion.

a. What is the one thing you most like about your child's school? ________

b. What is the one thing you most dislike about your child's school? ______

c. If you have any suggestions to offer concerning things you think should be done to improve your child's school, write them here. ____________

SAMPLE ITEMS - COQ Section 3 - *General Opinion*

Flow Chart Step 4

31a. Some people feel that the only way the schools can keep up the services they are now offering is to increase taxes. If this turns out to be true, should taxes be increased or school services cut?

_____1) I strongly feel that taxes should be increased.
_____2) I am inclined to feel that taxes should be increased.
_____3) I am not sure.
_____4) I am inclined to feel that school services should be cut.
_____5) I strongly feel that school services should be cut.

b. If you feel that school services should be cut, what things do you think should be cut out? ______________________________

____

32. Do you feel that teachers are paid too much or too little for the work they are expected to do?

_____1) I strongly feel that teachers are paid too much.
_____2) I am inclined to feel that teachers are paid too much.
_____3) Teachers are paid about the right amount.
_____4) I am inclined to feel that teachers are not paid enough.
_____5) I feel strongly that teachers are not paid enough.
_____6) I have no opinion.

36. At the time of the Annual Meeting, the Board Election, and the Budget Vote, several mailings were sent out. Please give your evaluation of the clarity and comprehensibility of these mailings:

a. The Budget Summary: was it satisfactory?

_____1) Yes.
_____2) No.
Any suggestions for improvement? ______________________________

b. The information regarding candidates for Board Offices: was it satisfactory?

_____1) Yes.
_____2) No.
Any suggestions? ______________________________

37. Community meetings regarding various educational issues were held throughout the school year. Do you consider them to be of value to you?

_____1) Yes.
_____2) No.
Do you have any suggestions for improvement? ____________________

____

SAMPLE ITEMS - COQ Section 4 - *Personal Data Inventory.*

Flow Chart Step 4

1. Who filled out this inventory? (Check appropriate items.)

    a. ______ Male ______ Female
    b. ______ Married ______ Unmarried
    c. ______ Widowed ______ Divorced

2a. In what grade in school is your oldest child now enrolled? (Circle one.)

K	1	2	3	4	5	6	7	8	9 Fresh. in HS	10 Soph. in HS	11 Jr. in HS	12 Sr. in HS

b. In what type school is this child enrolled?

_____ public school
_____ parochial school
_____ private school.

3. How long have you lived in the Smithfield School District? (Check one.)

Less than 2 years ( )	3-5 Years ( )	6-10 Years ( )	11-15 Years ( )	Over 15 Years ( )

4. Please check the highest level of education completed.

Self	Spouse (if any)	
_____	_____	elementary (K-6)
_____	_____	junior high (7-9)
_____	_____	senior high (10-12)
_____	_____	college (13-14)
_____	_____	college (15-16)
_____	_____	graduate school

5. Check job classification

Self	Spouse (if any)	
_____	_____	Labor (skilled _____ unskilled _____)
_____	_____	craftsman, service worker
_____	_____	professional
_____	_____	management
_____	_____	self-employed
_____	_____	other ____
_____	_____	unemployed
_____	_____	retired

3. CONSTRUCT ITEMS (Continued)

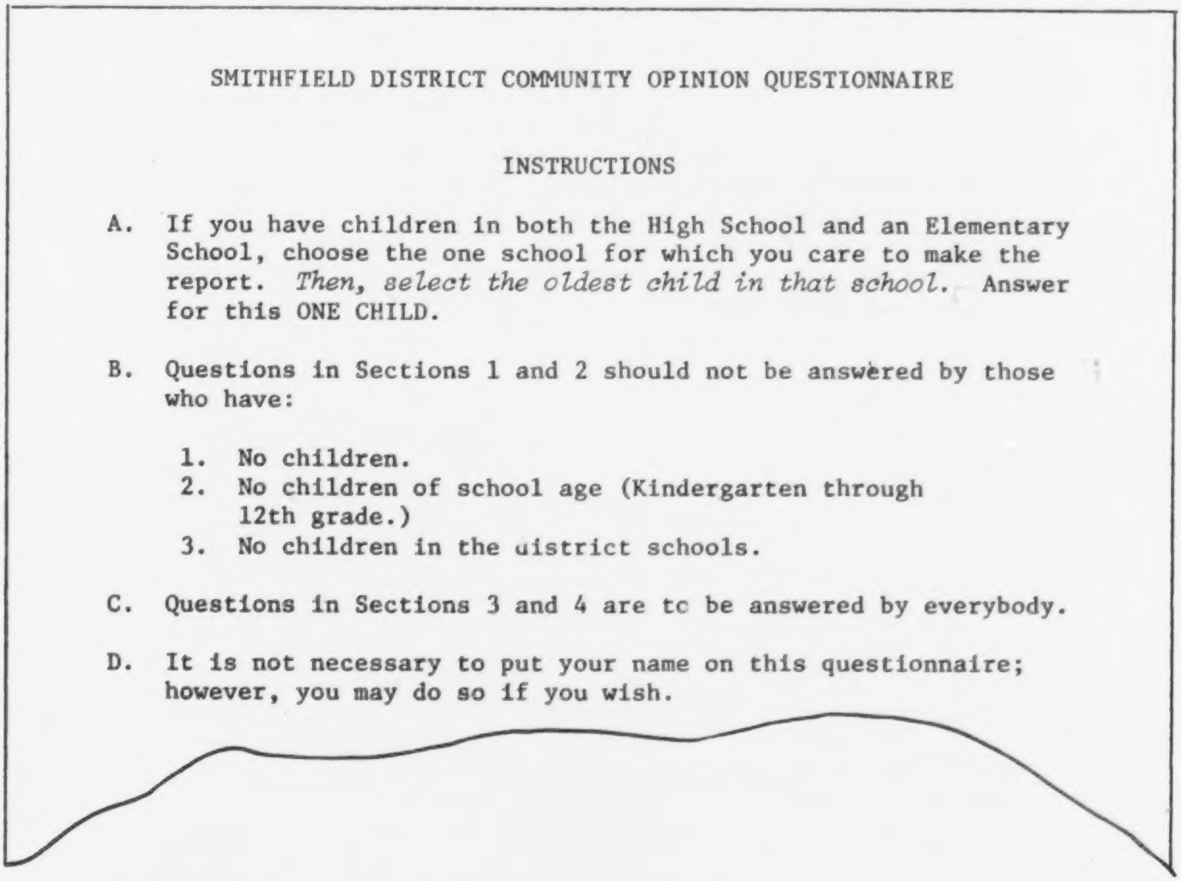
As you have seen from the sample items presented:

- A *sufficient number* of items is constructed to obtain the desired opinion data in each section of the COQ.

- The *response scale* for each item allows for a range of opinion from complete agreement ("Yes," "All," "Completely agree") through disagreement ("No," "None," "Disagree"), and provides a response option for those with no opinion on the particular item.

Having constructed items for the five sections of the COQ, it is necessary to give special attention to the *Instructions* for the COQ, so that the respondees will know what they are to do.

Here is a set of sample COQ instructions:



SMITHFIELD DISTRICT COMMUNITY OPINION QUESTIONNAIRE

INSTRUCTIONS

A. If you have children in both the High School and an Elementary School, choose the one school for which you care to make the report. *Then, select the oldest child in that school.* Answer for this ONE CHILD.

B. Questions in Sections 1 and 2 should not be answered by those who have:

  1. No children.
  2. No children of school age (Kindergarten through 12th grade.)
  3. No children in the district schools.

C. Questions in Sections 3 and 4 are to be answered by everybody.

D. It is not necessary to put your name on this questionnaire; however, you may do so if you wish.

3. CONSTRUCT ITEMS (Continued)

Revision of the COQ - Flow Chart Steps 5 and 6

Completion of the *Instructions for the COQ*, and items designed to obtain the data desired in each of the four sections of the COQ, results in a tentative draft of the COQ. It is necessary to revise the draft prior to administering the COQ, in order to maximize its effectiveness.

Revising the tentative COQ is the responsibility of the Assistant Superintendent for Research/Planning. Suggested steps in revision are:

- Examine each section of the COQ against the blank summary data tables constructed earlier. Revise items and sections until the data required by the tables will be obtained by the sections/items of the COQ.
- "Try out" the COQ on one or several members of the district staff. Elicit their comments as to clarity of the instructions, items, and response choices. Revise based on their input.
- Survey members of the district staff for their suggested revisions to the tentative COQ. This is done by providing them with a draft copy of the COQ, and the same worksheet that was used previously to obtain their input as to items and content (COQ Input/Revision Worksheet).
- Revise based on suggestions from members of the district staff obtained in #3 above.

REVISION OF THE COQ MUST BE COMPLETED BEFORE MAY 1 OF EACH EVEN-NUMBERED YEAR.

4. ADMINISTERING THE COQ - Flow Chart Step 7

It is the responsibility of the Assistant Superintendent for Research/Planning to coordinate the administration of the COQ. How this is accomplished will vary from situation to situation, but a generally helpful model seems to be:

1. Determine the size of the *district sample.* (Planning Procedure 3.)
2. *Randomly select* from the resident households to obtain the sample desired. (Planning Procedure 3.)
3. Recruit, employ, and train a *Survey Team.*
4. Inform the resident population via local media of the impending survey.
5. Supervise administration of the COQ survey.
6. Tabulate COQ results.

This guide will suggest a general method for accomplishing the steps comprising the model presented. Again, the guidelines are not intended as a dictate of how to administer the COQ in any particular district. They should, however, prove helpful in any district situation.

Determine the Size of the District Sample.

Randomly Select from the Resident Households to Obtain the Sample Desired.

NOTE: Both of the steps above of the administration model are products of Planning Procedure 3, accomplished previously by the Assistant Superintendent for Research and Planning, working with the Educational Planning Council. The *PPBS Systems Manual* description of Procedure 3 and Job Outline 1 guide the generation of the products required by the two steps listed above.

The Survey Team - Flow Chart Step 7

A. Recruiting

The Assistant Superintendent for Personnel Services is charged with assisting you in coordinating the administration of the COQ by recruiting and employing a *Survey Team.* This team might consist of teachers, college students, or regular school census takers, depending upon the particular district situation.

Because the recruiting of the Survey Team is an infrequent task for the Assistant Superintendent of Personnel (performed each even-numbered year), the form on the following page has been designed to be forwarded as a "memory jogger" to insure that the Survey Team is recruited and employed by the April 1st deadline.

Survey Team Data
Asst. Supt. Personnel

District: ______________________ Date: ______________

TO: Assistant Superintendent for Personnel

FROM: Assistant Superintendent for Research/Planning

SUBJECT: Recruitment of COQ Survey Team

Please advise me of the names, addresses, and telephone numbers of the personnel who will serve as this year's COQ Survey Team by returning this memo to me, completed as indicated below, *no later than* March 31, 19____.

COQ Survey Team:

	Name	Address	Telephone Number
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

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> REVIEW: To this point in the model for administering the COQ, the *COQ has been prepared* to fill specific district data collection needs, a *district sample size* has been determined, *households for sampling* have been identified by random selection, and a *Survey Team* has been recruited. The next step is to instruct the Survey Team as to how to administer the COQ to the households selected.

B. Training

The amount of instruction required will depend upon the nature of the Survey Team personnel. If they are regularly employed school census takers, very little training will be required. If, on the other hand, they are teachers or college students inexperienced in techniques of survey research, then specific training in this area is indicated.

No matter what the level of the Survey Team, the following training/administrative tasks are appropriate:

1. Notify the Survey Team to report to the Assistant Superintendent for Research/Planning on the Monday following July 4 of the survey year.
2. Inform the Survey Team of the *purposes* of the COQ.
3. Inform the Survey Team of the *design* of the COQ.
4. Allow the Survey Team to examine the COQ; answer any questions on its design or administration.
5. Review and provide copies of instructions for administering the COQ.
6. Train Survey Team in techniques of survey research, as needed.*
7. Assign each member of the Survey Team a geographic territory in the district and a schedule of interviews to be accomplished each day.
8. Set deadline for all COQ interviews as the *end of the third week of July*.

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*See Planning Procedure 4, Step 16 in *PPBS Systems Manual* for a reference on techniques of survey research.

Inform the Resident Population of the Pending Survey - Flow Chart Step 9

- If the district has an established community information function, coordinate the announcement of the pending COQ via local press, radio, and television with that office.

- If no such community information function exists at the district level, and the Assistant Superintendent for Research and Planning must prepare press releases announcing the COQ to the local media, the following guidelines and sample may prove helpful.

  - Draft the press release according to the "5 W's" of Journalism. Specifically:

    1. *Who* - the school district
    2. *What* - a survey of local opinion
    3. *Where* - in the school district communities
    4. *When* - during the first three weeks of July
    5. *Why* - to help District personnel in planning activities for District schools.

  - Provide all necessary *identification information* in the heading of the release.

Here is a sample press release announcing a COQ:

Smithfield School District
Perryville, New York 14000

PRESS RELEASE

From: D. K. Randall
(714) 232-2200

Release: Immediate

PERRYVILLE, N.Y., June 25, 1971 -- Personnel of the Smithfield District Schools will be conducting a survey of local opinion about local schools and school-related issues in Perryville and surrounding communities during the first three weeks of July. D. K. Randall, Assistant Superintendent for Research and Planning, describes the purpose of the survey, which is conducted once every two years, as gathering data on community opinion to help District personnel in planning and administering Smithfield District Schools. A 10-member Survey Team will call on some 2,654 households selected at random from the total district population. Interviews will begin July 7 and are to be completed by July 17. Residents are asked to cooperate with the Survey Team ...

Supervise the Administration of the COQ - Flow Chart Step 10

Tabulate COQ Results - Flow Chart Steps 11 and 12

The final two steps in the model for administering the COQ consist of making sure the Survey Team meets the deadline for accomplishing all interviews, and responding to the completed COQ's that result from their efforts.

The first of these steps, supervising the administration of the COQ, can be accomplished by periodic progress checks with each member of the Survey Team during the administration period. Contingencies that must be allowed for include illness of Survey Team members, inclement weather, and unavailability of assigned interviewees due to vacation. Depending upon the particular situation, it may be necessary to employ substitute Survey Team members, schedule weekend interviews, or select additional households from the master list if the July deadline for all interviews is to be met.

The second step, tabulating the COQ results, consists of having the total responses categorized according to the *summary tables* prepared earlier in the Planning procedure. Once the raw response data are categorized on the summary tables, they can be translated into percentages for presentation at the District Planning Council meeting in August.

EXAMPLE:

Table 1. Citizen Willingness to Pay Higher Taxes to Continue Present Level of Educational Services.

Categories	Number Responding	Affirmative Responses	Negative Responses	No Opinion
1. Among citizens with children in school				
a) Public School	2008	1400	604	4
b) Parochial School	790	283	507	0
c) Private School	85	23	19	43
Totals	2883	1706	1130	47
2. By Occupation				
a) Blue Collar	1450	1005	445	23
b) Professional	970	378	591	17
c) Management	410	298	112	5
d) Self-employed	53	25	28	2
Totals	2883	1706	1130	47
3. Voting				
a) Last Budget Vote	1043	--	--	--
1) Did vote	1840	--	--	--
2) Did not vote		--	--	--
Totals	2883			

PLANNING PROCEDURE 6

Form 1 Guide

for use by the

Assistant Superintendent
Research/Planning

FORM 1 - COUNTY/DISTRICT POPULATION ANALYSIS

Form 1 provides for construction of input basic to the overall purposes of Planning Procedure 6, which is the *forecasting of school district resident population.* The data obtained and recorded on Form 1 serve as direct input to the remainder of tasks and their resulting form products in Procedure 6.

Before beginning work on Form 1, it is necessary to:

- Contact various *regional planning offices* (e.g., Erie and Niagara County Regional Planning Boards) to determine availability of local population forecasts or studies.
- Obtain copies of *Special Census Reports* for the county from the United States Department of Commerce.
- Obtain a copy of the current *New York State Statistical Yearbook.*

CONSTRUCTING A FORM 1:

1. Complete the identification required at the top of the form by entering the *date*, the *county and district* under study, and your *name* in the spaces provided.
2. Carefully read through all of the *instructions* provided on the form. Note that they require you to obtain population data, react to the data by determining yearly increase or decrease, and compute the county-to-district population percentage.
3. Note that the analysis performed in constructing Form 1 is for the current year, and the five preceding years.

A sample completed Form 1 for a hypothetical county and district follows this page. Examine it before beginning construction of Form 1 for your district.

Form 1

County/District Population Analysis

Date 7/10/71

District Smithfield

Person Completing Randall

Instructions:

1. Obtain population figures for the county and school district for the current and past five years.
2. Determine yearly increase or decrease in county and district population.

	County		District	
Previous Years	Population*	Yearly Increase (+) or Decrease (-)	Population*	Yearly Increase (+) or Decrease (-)
1964	148,300	--	27,200	--
1965	149,300	+ 1,000	28,000	+ 800
1966	149,800	+ 500	29,900	+ 1,900
1967	150,100	+ 300	31,300	+ 1,400
1968	150,300	+ 200	32,100	+ 800
1969	150,300	--	32,625	+ 525
Current	150,300	--	32,625	--

*Population figures obtained from sources specified on preceding page.

PLANNING PROCEDURE 6

Form 2 Guide

for use by the

Assistant Superintendent
Research/Planning

FORM 2 - YEARLY INCREASE/DECREASE IN DISTRICT RESIDENT POPULATION

Form 2 is a *multipurpose worksheet* which is constructed in several of the Planning procedures to obtain various forecast data. The product resulting from construction of Form 2 depends upon the type of data used in its construction. In Procedure 6, the forecast product desired is *yearly increase or decrease in district resident population.*

Before beginning work on Form 2, it is necessary to determine whether district resident population is *increasing, remaining constant,* or *decreasing.* THIS IS A CRITICAL DISCRIMINATION. It can be accomplished by:

- Reviewing the district population figures listed on Form 1 for the past ten years.
- Contacting city, town, and village clerks in the district to determine the number of new building permits issued.
- Estimating the number of additional residents moving into the district as a result of new housing by obtaining population projections from builders, local government agencies, etc.

CONSTRUCTING A FORM 2:

1. Enter the required identification information in the spaces provided at the top of the form. In the "Subject" space, enter the purpose for which the Form 2 is being used. In this case, "Increase/Decrease of District Population" is the subject of Form 2.
2. Carefully read through all of the *instructions* provided on the form itself. Note that instructions 1 and 2 call for obtaining and reacting to historical data on district population, and that instructions 3, 4, and 5 require *selection of a statistical model* to be used, based on reaction to the data.

3. Complete the first page of Form 2 according to instructions 1 and 2. Here is a sample:

Year	School Year	Type of Historical Data (e.g. State Aid/WADA; Resident Population): *District Resident Population Data*	Yearly increase (+) or decrease (-) (Subtract CY-9 from CY-10; CY-8 from CY-9 etc.)
CY-10	1960-61	20,200	--
CY- 9	1961-62	21,800	+1,600
CY -8	1962-63	23,100	+1,300
CY- 7	1963-64	25,000	+1,900
CY- 6	1964-65	27,200	+2,200
CY- 5	1965-66	28,000	+ 800
CY- 4	1966-67	29,900	+1,900
CY- 3	1967-68	31,300	+1,400
CY- 2	1968-69	32,100	+ 800
CY- 1	1969-70	32,625	+ 525
Current Year	1970-71	32,625	--
		Total Net Increase or Decrease:	12,425

NOTE: In the above example -

- The type of historical data is specified. In this case, "District resident population" data were used.
- + or - indicates whether the resident population increased or decreased from year to year.
- Total Net Increase or Decrease was determined by adding the individual increase or decrease for the last ten years.

4. Select statistical Model I, II, or III for use in constructing the remainder of Form 2.

   - Based on the work performed prior to beginning Form 2, and the population analysis performed in the first part of Form 2, decide if the district resident population is *increasing*, *remaining constant*, or *decreasing*. (This may be possible based on the pre-work alone.)

IF the district population is - →	THEN select -
Increasing →	Model I - Maximum Change Model
Remaining constant →	Model II - Standard Change Model
Decreasing →	Model III - Minimum Change Model

5. *When the appropriate model has been selected*, complete the construction of Form 2 according to the instructions for that model.

> NOTE: Examples of computation, according to each model, are found on the following page. *While all three models are completed, note that this is for illustrative purposes only.* In actual construction of a Form 2, only one model is to be selected and used.

SAMPLE PROJECTIONS: MODELS I, II, AND III - All three models completed for illustrative purposes.

Model I - Maximum Change

Select any three years above which showed the greatest year-to-year *increase*, sum, and divide by three to obtain *maximum change*.

School Year	Yearly Change
1963-64	2,200
1962-63	1,900
1965-66	1,900
3-year total	6,000
3-year average	2,000

Model II - Standard Change

Find total net increase or decrease above and divide by 10 to obtain *standard change*.

School Year	Yearly Change
1960-61	1,600
1961-62	1,300
1962-63	1,900
1963-64	2,200
1964-65	800
1965-66	1,900
1966-67	1,400
1967-68	800
1968-69	525
1969-70	--
10-year total	12,425
10-year average	1,242

Model III - Minimum Change

Select any three years above which showed the least increase or the greatest decrease; sum, and divide by 3 to obtain the *minimum change*.

Year	Yearly Change
1964-65	800
1968-69	525
1970-71	--
3-year total	1,325
3-year average	441

UPON COMPLETION, FORM 2 BECOMES DIRECT INPUT FOR COMPLETION OF FORM 3 - RESIDENT POPULATION FORECAST.

PLANNING PROCEDURE 6

Form 3 Guide

for use by the

Assistant Superintendent
Research/Planning

FORM 3 - RESIDENT POPULATION FORECAST

Construction of Form 3 results in a *resident population forecast* that serves as basic input for other later Planning procedures. It is based largely on Form 2, and results in a more complete and inclusive population projection.

Input data sources required by Form 3 are:

- Population Migration Data from Regional Planning Boards.
- *County and City Data Book*

CONSTRUCTING A FORM 3:

1. Enter the required identification information in the spaces provided at the top of the Form.
2. Carefully read through the *instructions* on the Form 3 itself. Note that instructions 1 and 2 are based on the work performed on Form 2, and that instructions 3, 4, 5, and 6 call for projections based on the Form 2 base data.
3. After reviewing the sample Form 3 on the following page, begin construction of the actual Form 3 by entering the *district resident population* for the *current year* in the space provided in the "Population Forecast" column.
4. Add the *population change factor* computed according to Model I, II, or III on Form 2 to the *current population.* Enter the total in the *budget year* space provided.
5. Complete the "Population Forecast" column by adding the change factor from Form 2 to the budget year figure to obtain the Year 1 projection. Repeat through Year 5.
6. Compute population increase or decrease by applying latest *migration, birth, and death rate factors* to each yearly projection. Enter the results in the spaces provided.
7. Complete the *Total Population Forecast* column by totaling the annual population forecast as acted upon by the factors specified in #6.

SAMPLE FORM 3 POPULATION FORECAST:

- The following example is based on Model I - Maximum Change, because analysis indicated that the resident population was increasing.
- Givens in the example:
  - Change Factor (from Sample Form 2 - Model 1): 2000
  - Current population: 32,625
  - Migration rate: +3% per year
  - Birth rate: 15.9 per 1,000
  - Death rate: 10.2 per 1,000

Model I ________ Model II ________ Model III ________

Model selected and rationale:

- *Analysis (Form 1 and 2) indicates district resident population is increasing.*

Year	Population Forecast	Increase(+)/decrease(-) as result of			Total Population Forecast
		Migration	Birth Rate	Death Rate	
Current	32,625	+ 978	+ 508	- 326	33,785
Budget	34,625	+1,038	+ 520	- 346	35,837
Year 1	36,625	+1,098	+ 542	- 361	37,904
Year 2	38,625	+1,158	+ 604	- 387	40,000
Year 3	40,625	+1,218	+ 636	- 408	42,071
Year 4	42,625	+1,278	+ 657	- 428	44,132
Year 5	44,625	+1,338	699	- 448	46,214

UPON COMPLETION, FORM 3 BECOMES INPUT FOR FORM 4 - FORECAST OF POPULATION CHARACTERISTICS.

PLANNING PROCEDURE 6

Form 4 Guide

for use by the

Assistant Superintendent
Research/Planning

FORM 4 - FORECAST OF POPULATION CHARACTERISTICS

Form 4 results in a *forecast of population characteristics* over a five-year period. It is the last product of Planning Procedure 6, and provides input for later Planning and Programming activities, especially in areas such as developing adult education programs. Form 4 has as a base the total population forecase generated in constructing Form 3.

Input data sources required for Form 3 are:

- *New York State Statistical Yearbook* (current edition)
- *U.S. Census of Population: Vol. I - Characteristics of the Population*
- Local population studies, if available

CONSTRUCTING A FORM 4:

1. Enter the required identification information in the spaces provided at the top of the form.
2. Carefully read through the instructions on the Form 4 itself. Note that instruction 1 requires input from Form 3. Instructions 2 and 3 require determining population characteristic percentages and applying them to the base population data obtained from Form 3.
3. After reviewing the sample Form 4 on the following page, begin construction of the actual Form 4 by entering the total *population forecast* from Form 3 in the column provided.
4. Determine the percentage of males/females in the population from the input documents specified above. Apply the percentages to the population projection for each year, Current through Year 5.
5. Repeat #4 with age and racial characteristics. Enter all totals obtained in the columns provided by year.

UPON COMPLETION, FORM 4 IS PLACED IN THE DISTRICT DATA FILE FOR FUTURE REFERENCE IN PLANNING AND PROGRAMMING ACTIVITIES.

SAMPLE: COMPUTATIONS FOR 1971 CURRENT and 1972 BUDGET COMPLETED AS EXAMPLES.

Form 4

Forecast of Population Characteristics

Date: 8/5/71

District: Smithfield

Person Completing: Randall

Instructions:

1. Obtain population forecast from From 3.
2. Determine percentage of population that is male, female, white, non-white, and age-group characteristics.
3. Multiply percentages times total population to obtain population characteristics.

Year	Total Population Forecast (from Form 3)	Number of Males	Number of Females	Age of Population				Racial Characteristics	
				0-19	20-40	41-60	Over 60	White	Non-white
1971 Current	33,785	15,541	18,244	13,514	10,136	7,433	2,702	31,589	2,196
1972 Budget	35,837	16,485	19,352	14,335	10,751	7,884	2,867	33,508	2,329
1973 Year 1	37,904								
1974 Year 2	40,000								
1975 Year 3	42,071								
1976 Year 4	44,132								
1977 Year 5	46,214								
Percentages used:		46%	54%	40%	30%	22%	8%	93.5%	6.5%

PLANNING PROCEDURE 7

Occupational Data Checklist

for use by the

Director of Guidance Program

DETERMINING OCCUPATIONAL NEEDS OF THE SCHOOL DISTRICT COMMUNITY

As Director of the Guidance Program, you are charged with *collecting data on the occupational needs* of the local and regional area. This checklist is designed to aid you in obtaining the best sources for that data.

SOURCE:	OBTAINED FROM:	ON HAND	RE-QUESTED
Statistical Abstract of the United States U.S. Dept. of Commerce, Census Bureau	Superintendent of Documents* U.S. Govt. Printing Office Washington, D. C. 20402	☐	☐
Tract Facts for Area U.S. Dept. of Commerce, Census Bureau	Superintendent of Documents* U.S. Govt. Printing Office Washington, D. C. 20402	☐	☐
Manpower Directions	New York State Dept. of Labor State Office Building (Campus) Albany, New York 12226	☐	☐
Occupation Outlook Handbook	New York State Dept. of Labor State Office Building (Campus) Albany, New York 12226	☐	☐
Statistical Reporter	New York State Division of the Budget Office of Statistical Coordination State Capital Albany, New York 12224	☐	☐
New York State Business Factbook	New York State Dept. of Commerce 112 State Street Albany, New York 12207	☐	☐
--	New York State Employment Agencies located in your regional area.	☐	☐
--	Regional Planning Commissions	☐	☐
--	Regional Education Centers	☐	☐
--	Local Chambers of Commerce	☐	☐

*Ask for publications by title and department.

PLANNING PROCEDURE 7

Form 5 Guide

for use by the

Assistant Superintendent
Research/Planning

FORM 5 - RESIDENT INCOME FORECAST

Form 5 provides for the construction of an estimate of school district resident average income for the next five years. Input required to make such an estimate is the income growth rate over the preceding ten years, and the per capita income for the current year. The income forecast made on Form 5 becomes part of the data bank for use in Programming and Planning activities, specifically, in generating Program memoranda and Program Element summaries.

In constructing Form 5, you will need:

- School district average income data from the district-administered *Community Opinion Questionnaire.*
- County average income data as found in the *New York State Statistical Yearbook* and/or *Business Factbook: New York State.*

CONSTRUCTING A FORM 5:

1. Complete the identification required at the top of the Form 5.
2. Carefully read through the five itemized instructions on the Form 5 itself. Note that you are required to perform some computations not recorded on the Form 5.
3. Respond to instruction 1 - determine the *average resident income* 10 years previous to current year. For purposes of the completed sample Form 5 presented later, these income figures were used:

1961 -	$ 2,547.00
1962 -	2,657.00
1963 -	2,727.00
1964 -	2,739.00
1965 -	2,863.00
1966 -	2,975.00
1967 -	3,210.00
1968 -	3,475.00
1969 -	3,806.00
1970 -	4,119.00
	$31,118.00

Average Resident Income
1961-1970 - $3,112.00

- Respond to instruction 2 by entering the *current school district* per capita income on the Form 5.

- Respond to instruction 3 by computing the *average yearly change* in resident income. Based on the income figures listed earlier:

	INCOME	YEARLY CHANGE
1961	$2,547.00	$ --
1962	2,657.00	110.00
1963	2,727.00	70.00
1964	2,739.00	12.00
1965	2,863.00	124.00
1966	2,975.00	112.00
1967	3,210.00	235.00
1968	3,475.00	265.00
1969	3,806.00	331.00
1970	4,119.00	313.00
		$1,572.00

- Respond to instructions 4 and 5 by adding the average yearly change in resident district income to the current year's income to obtain an estimate for Year One of the projection. Repeat for Years 2-5 as successive projected totals are obtained.

> A sample Form 5 for a hypothetical county and district follows this page. Examine it before beginning construction of Form 5 for your district.

FORM 5

Resident Income Forecast

Date 9/20/71

District Smithfield

Person Completing Randall

Instructions:

1. Determine average resident income 10 years previous to current year.
2. Determine average resident income for current year.
3. Determine average yearly change in resident income for past 10 years.
4. Add average yearly change in income to current year's average resident income to obtain income level forecast for the budget year.
5. Add the average yearly change in income to the budget year forecast to obtain the estimated income level for Year 1. Repeat through Year 5.

Year	Estimated Per Resident Income
1970 10 Years Previous	$3,112
1971 Current	4,900
1972 Budget	5,057
1973 Year 1	5,214
1974 Year 2	5,371
1975 Year 3	5,528
1976 Year 4	5,685
1977 Year 5	5,842

Average income change used $157.00

PLANNING PROCEDURE 7

Form 6 Guide

for use by the

Assistant Superintendent
Research / Planning

FORM 6 - FORECASTING DISTRICT POPULATION EDUCATIONAL LEVEL

Form 6 is designed to assist the *forecasting of the district population educational level* over the next five years. Input required to make such an estimate includes the educational level of the population for the preceding 10 years and the current average educational level in the district population. Form 6 is included in the data bank for use in Programming and Planning activities, specifically, in generating Program memoranda and Program Element summaries.

In constructing Form 6, you will need:

- Average educational level of the school district population for each of the 10 preceding years, as found in the *County and City Data Book.*
- Current average educational level of the school district population from the district-administered *Community Opinion Questionnaire.*

The guided bibliography at the end of this guide will help you obtain the specified documents.

CONSTRUCTING A FORM 6:

1. Complete the identification information required at the top of Form 6.
2. Carefully read through the five instructions of Form 6, itself. Note that you are required to perform some computations as basic input to the form.
3. ■ Respond to instruction 1 by computing the average educational level of the school district population over the preceding 10 years. For purposes of the completed sample Form 6 which is presented later, these figures were used:

YEAR	AVERAGE EDUCATIONAL LEVEL	YEARLY CHANGE
1961	6.0	--
1962	6.0	--
1963	7.0	1
1964	7.0	--
1965	8.0	1
1966	8.0	--
1967	8.0	--
1968	9.0	1
1969	9.0	--
1970	10.0	1
	78.0	4

- Average Educational Level 1961-70 = 7.8
- Average Yearly Change 1961-70 = 0.4

- Respond to instruction 2 by entering the *current* average educational level of the school district population on Form 6.

- Respond to instruction 3 by computing the *average yearly change in educational level.* Enter it on Form 6.

- Respond to instructions 4 and 5 by adding the *average yearly change* to the *current year's educational level* to obtain an estimate for the "budget" year. Repeat for all yearly estimates generated Year 1 through Year 5.

A sample completed Form 6 for a hypothetical district follows this page. Examine it before beginning construction of a Form 6 for your district.

Form 6

Forecasting District Population Educational Level

Date 10/2/71

District Smithfield

Person Completing Randall

Instructions:

1. Determine population educational level 10 years previous to current year.
2. Determine population educational level for current year.
3. Determine average yearly change in educational level of population.
4. Add average yearly change in educational level to current year's educational level to obtain estimated educational level for the budget year.
5. Add average yearly change in educational level to budget year's estimated educational level to obtain estimate for Year 1. Repeat through Year 5.

Year	Estimated Educational Level
1970 10 Years Previous	7.8
1971 Current	10.0
1972 Budget	10.4
1973 Year 1	10.8
1974 Year 2	11.2
1975 Year 3	11.6
1976 Year 4	12.0
1977 Year 5	12.4

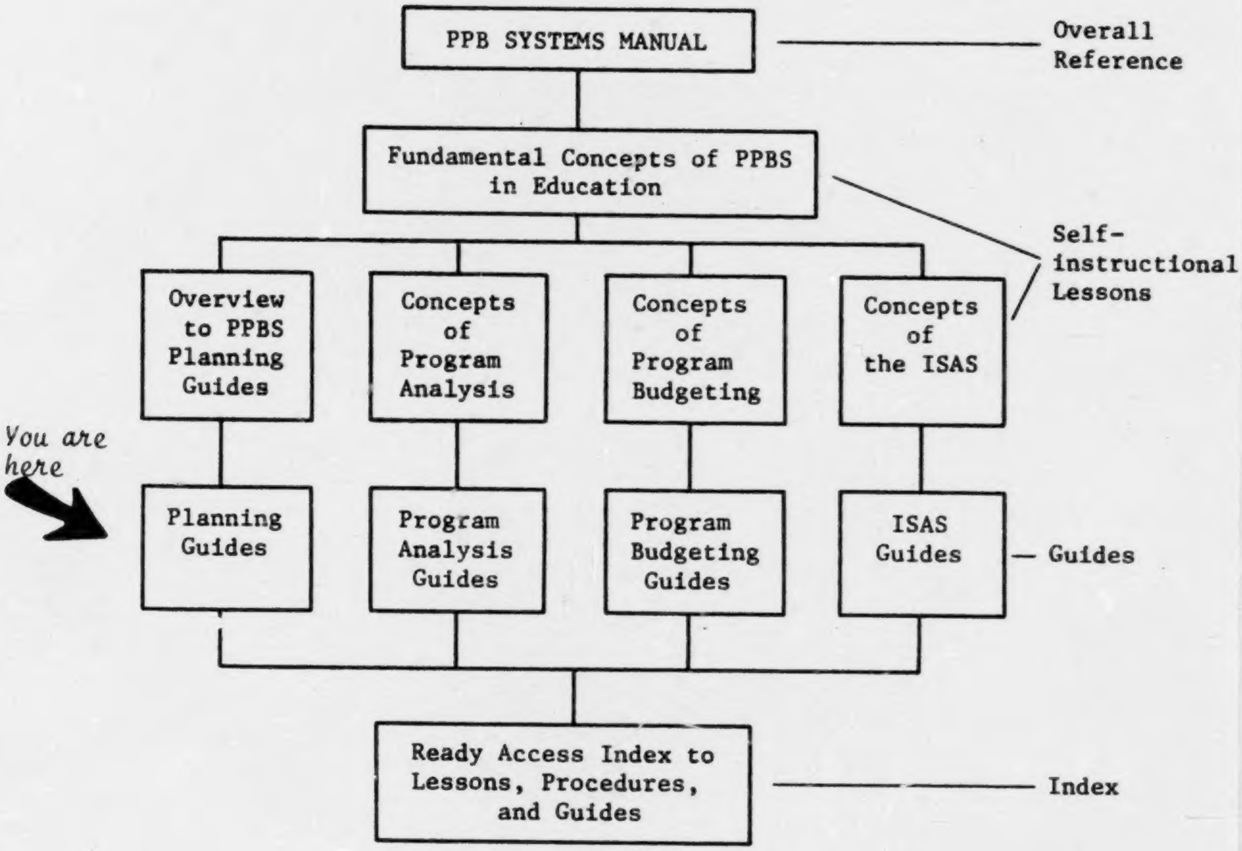
Average change in educational level used: 0.4

PLANNING GUIDE #2

for use by the

School Business Administrator

WESTERN NEW YORK PPBS TRAINING PACKAGE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Self-instructional Lessons
Overview to PPBS Planning Guides
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Concepts of Program Budgeting
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Program Budgeting Guides
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Ready Access Index to Lessons, Procedures, and Guides
Index

PURPOSES OF THIS GUIDE

Planning Procedures Guide #2 is the second of two guides designed to facilitate the accomplishment of PPBS Planning procedures that have been identified as critical to the total Planning process.

Guide #2 is designed for use by the School Business Administrator in coordinating the accomplishment of the following Planning procedures:

10 - Forecasting Long-Range (Five-Year) State Aid Revenue

13 - Forecasting Full Property Valuation

14 - Estimating School District Revenue

This guide is a collection of worksheets, forms, checklists, examples, and instructions for use by the School Business Administrator, or his delegate, in performing the tasks required by the three Planning procedures specified.

GUIDE #2 GLOSSARY:

WADA - Weighted Average Daily Attendance; daily attendance x 1.25

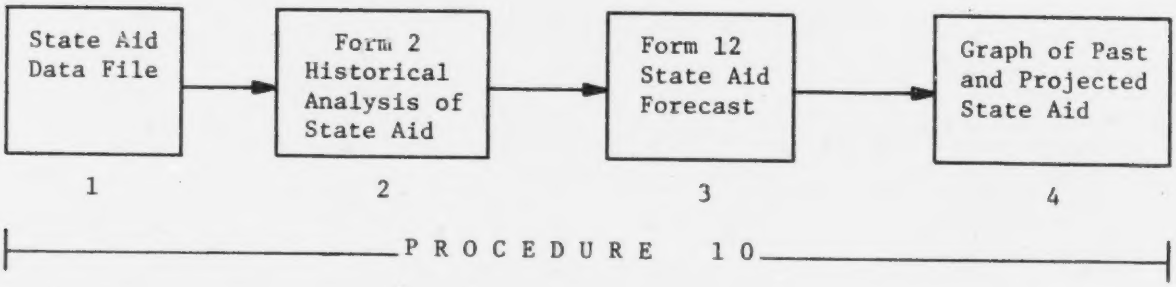
CY - Current Year

CY1-CY5 - Indicates year of projection beyond current year; CY1 indicates first year, CY5 the fifth year.

Planning Procedures 10, 13, and 14 charge the School Business Administrator with the following tasks and performance sequence:

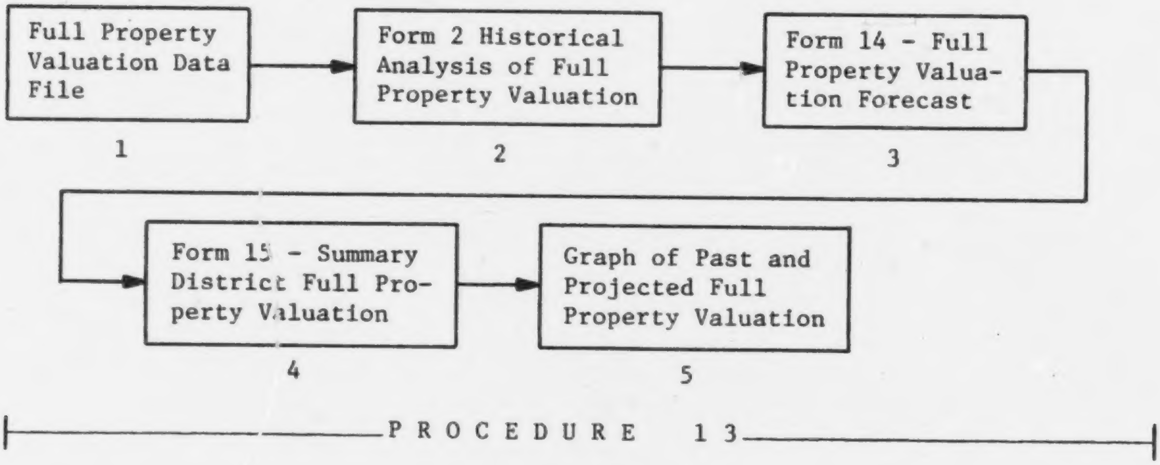
Procedure 10 - Forecasting Long-Range State Aid

1. Establish and maintain data file on state aid.
2. Complete Form 2 analysis of historical state aid/WADA.
3. Construct Form 12 -- State Aid Forecast (5 year)
4. Plot historical and projected state aid on graph.


State Aid Data File
1
Form 2 Historical Analysis of State Aid
2
Form 12 State Aid Forecast
3
Graph of Past and Projected State Aid
4
PROCEDURE 10

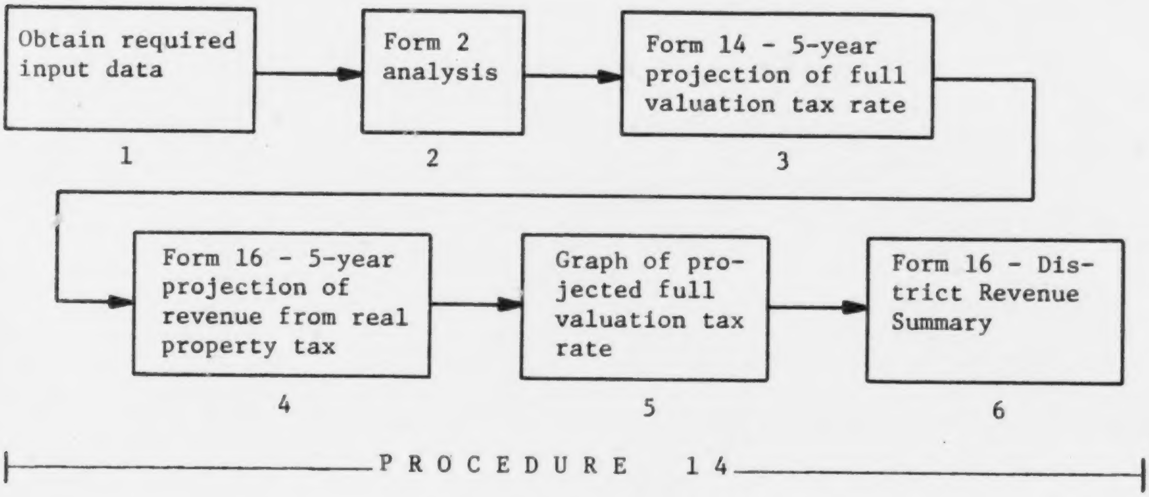
Procedure 13 - Forecasting Full Property Valuation

1. Establish and maintain data file on full property valuation.
2. Complete Form 2 analysis of historical full property valuation.
3. Construct Form 14 - Full Property Valuation Forecast (5 years).
4. Construct Form 15 - Summary District Full Property Valuation.
5. Plot historical and projected full property valuation in graph.


Full Property Valuation Data File
1
Form 2 Historical Analysis of Full Property Valuation
2
Form 14 - Full Property Valuation Forecast
3
Form 15 - Summary District Full Property Valuation
4
Graph of Past and Projected Full Property Valuation
5
PROCEDURE 13

Procedure 14 - Estimating School District Revenue

1. Obtain required input data from Forms 12 and 13 in district file.
2. Complete Form 2 analysis of historical full valuation tax rate.
3. Construct Form 14 -- Full Valuation Tax Rate (5 years)
4. Construct Form 16 -- Revenue from Real Property Tax (5 years)
5. Plot historical and projected full valuation tax rate on graph.
6. Construct Form 16 -- District Revenue Summary.


Obtain required input data
1
Form 2 analysis
2
Form 14 - 5-year projection of full valuation tax rate
3
Form 16 - 5-year projection of revenue from real property tax
4
Graph of projected full valuation tax rate
5
Form 16 - District Revenue Summary
6
PROCEDURE 14

PROCEDURE 10: FORECASTING LONG-RANGE (FIVE-YEAR) STATE AID

Flow Chart Step 1

As School Business Administrator, this Planning procedure charges you with *maintaining data files* of information concerning *changes in the state aid formula*. This checklist is designed to aid you in setting up and maintaining the necessary files of information from the sources specified.

SOURCE OF DATA	CURRENTLY ON HAND	MUST OBTAIN
New York State Teachers Association publications	☐	☐
New York State School Boards Association publications	☐	☐
New York State Educational Conference Board publications	☐	☐
State Education Department:		
School Financial Aid Bulletin	☐	☐
School Business Management News	☐	☐
School Development Council publications	☐	☐
New York State Legislative Bulletins	☐	☐
New York State Taxpayer	☐	☐

State Assemblymen	☐	To be contacted periodically to determine any planned changes in state-aid formulas.
State Senators	☐	

The data in the files specified must be kept up-to-date. It is critical input to the long-range state-aid forecast.

FORECASTING LONG-RANGE (FIVE-YEAR) STATE AID - Flow Chart Step 1

The School Business Administrator has the responsibility under Planning Procedure 10 of *preparing a five-year forecast of state aid to the school district*. This forecast is accomplished through the construction of a Form 2 using state aid per WADA data and a Form 12 revenue forecast.

CONSTRUCTING A FORM 2: Flow Chart Step 2

1. Enter the required identification information in the spaces provided at the top of the Form 2. In the "Subject" space, record the purpose for which the form is being used. In this case, "Five-Year Projection of State Aid" is the subject of Form 2.

2. Carefully read through all of the instructions provided on the form itself. Note that instructions 1 and 2 call for obtaining and reacting to historical data on *state aid per WADA*, and that instructions 3, 4, and 5 require *selection of one of three statistical models* based on analysis of the historical data recorded.

3. *Complete the first page* of Form 2 according to instructions 1 and 2. Here is a sample:

Year	School Year	Type of Historical Data (e.g. State Aid/WADA: Resident Population): *State Aid/WADA*	Yearly increase (+) or decrease (-) (Subtract CY-9 from CY-10; CY-8 from CY-9, etc.)
CY-10	19*61*-*62*	*$276*	*$ -*
CY- 9	19*62*-*63*	*291*	*+ 15*
CY- 8	19*63*-*64*	*300*	*+ 9*
CY- 7	19*64*-*65*	*335*	*+ 35*
CY- 6	19*65*-*66*	*377*	*+ 42*
CY- 5	19*66*-*67*	*410*	*+ 33*
CY- 4	19*67*-*68*	*461*	*+ 51*
CY- 3	19*68*-*69*	*494*	*+ 33*
CY- 2	19*69*-*70*	*543*	*+ 49*
CY- 1	19*70*-*71*	*587*	*+ 44*
Current Year	19*71*-*72*	*661*	*+ 74*
		Total Net Increase or Decrease:	*+ $385*

SAMPLE COMPUTATIONS: MODELS I, II, AND III. All three models completed for illustrative purposes only.

Model I - Maximum Change

Select any three years above which showed the greatest year-to-year *increase*; sum, and divide by 3 to obtain *maximum change*.

School Year	Yearly Change
1967-68	$51.00
1969-70	49.00
1971-72	74.00
3-year total	$174.00
3-year average	$ 58.00

Model III - Minimum Change

Select any three years above which showed the least increase or the greatest decrease; sum and divide by 3 to obtain the *minimum change*.

School Year	Yearly Change
1962-63	$15.00
1963-64	9.00
1966-67	33.00
3-year total	$57.00
3-year average	$19.00

Model II - Standard Change

Find total net increase or decrease above and divide by 10 to obtain *standard change*.

School Year	Yearly Change
1962-63	$15.00
1963-64	9.00
1964-65	35.00
1965-66	42.00
1966-67	33.00
1967-68	51.00
1968-69	33.00
1969-70	49.00
1970-71	44.00
1971-72	74.00
10-year total	$385.00
10-year average	$ 38.50

UPON COMPLETION, FORM 2 BECOMES DIRECT INPUT FOR COMPLETION OF FORM 12 - STATE AID 5-YEAR FORECAST.

Form 12 State and Federal Aid 5-year Revenue Forecast

Date August 7, 1971

District Severn

Person Completing Shimkus

Instructions:

1. Obtain from Form 2 the maximum, standard, and minimum changes (Models I, II, and III) in State and Federal Aid per WADA.[1]
2. Indicate which model will be used and the rationale.
3. Add the change to current year's aid per WADA to obtain the forecast for the budget year.
4. Add the change to the budget year's forecast to obtain the forecast for Y1. Repeat through Y5.
5. Obtain the estimated WADA for the next five years.
6. Multiply the aid per WADA times the estimated WADA to obtain the estimated aid revenue.

State Aid/WADA:

Model I $

Model II $ 38.50

Model III $

Model selected and rationale: Model II - Standard Change. Analysis of all input data indicates state aid will remain constant.

Year	Aid Per WADA	Estimated WADA	Estimated Revenue (Aid per WADA x Estimated WADA)
Current 1971-72	$661.00	5,006	$3,308,966.00
Budget 1972-73	699.50	5,694	3,982,593.00
Year 1973-74	738.00	6,382	4,709,916.00
Year 2 1974-75	776.50	7,070	5,489,855.00
Year 3 1975-76	815.00	7,758	6,322,770.00
Year 4 1976-77	853.50	8,446	7,039,741.00
Year 5 1977-78	892.00	9,134	8,147,528.00

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[1] WADA - weighted average daily attendance

PLOTTING HISTORICAL AND PROJECTED STATE AID PER WADA DATA - Flow Chart Step 4

The completed Form 2 and Form 12 serve as input for the plotting of state aid per WADA to the district for each of the ten years preceding the current year, and for the five years projected beyond the current year. The resulting graph serves to display the anticipated directional trend of state-aid revenue to the district.

TO CONSTRUCT THE GRAPH:

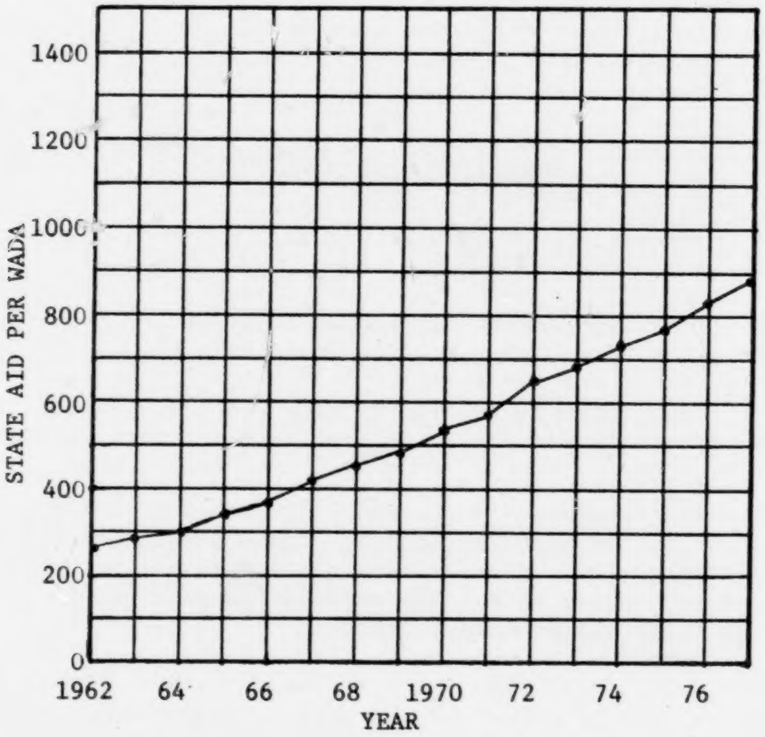
1. Establish a vertical graph axis to indicate *State Aid per WADA*.
2. Divide the vertical graph axis into a number of equal units to allow display of the lowest and highest dollar amounts of state aid/WADA over the preceding ten years, and forecasted five years.
3. Establish a horizontal graph axis to indicate *Year*.
4. Divide the horizontal axis into 15 equal units to allow display of the preceding ten years plus the five years of the forecast.
5. Plot the dollar amount of state aid/WADA for each of the preceding ten years from Form 2. Plot the amount for the forecast years from Form 12.

A sample graph is presented on the following page.

SAMPLE GRAPH - HISTORICAL AND PROJECTED STATE AID PER WADA

This sample graph is constructed based on the data contained in the sample Form 2 and Form 12 included previously in this guide.

- Time Frame - 1961-62 through 1976-77.
- Aid Range - State aid per WADA in the above period ranged from $276 in 1962 to a forecasted $892 in 1977.



UPON COMPLETION, THE STATE AID PER WADA TREND GRAPH AND THE COMPLETED FORM 2 AND FORM 12 ARE PLACED IN THE DISTRICT DATA FILE FOR LATER USE IN ESTIMATING TOTAL DISTRICT REVENUE.

PROCEDURE 13: FORECASTING FULL PROPERTY VALUATION

Planning Procedure 13 charges the School Business Administrator with *forecasting district full property valuation* for the next five years. This forecast serves as input to an estimate of total district revenue, accomplished later in the procedures.

The tasks involved in making a five-year forecast of district full property valuation are:

1. Gather input data from various sources to determine anticipated trends in housing, construction, and population over the next five years.
2. Complete a Form 2 analysis of full property valuation of the district over the preceding ten years.
3. Complete a Form 14 - Real Property Valuation, and a Form 15 - Summary.
4. Plot real property full valuation for the preceding ten years and the future five years on a graph.
5. Place Forms 2, 14, and 15 plus the graph in the district data file for use in estimating total district revenue.

Tasks 1-4 are performed by the School Business Administrator for each tax district within the school district. Obviously, accomplishing a forecast of full property valuation is very similar to the work performed in forecasting state aid per WADA. The major difference in the two forecasts is the data used and the resultant product.

The checklists, guidelines, and examples on the following pages have been designed to assist the School Business Administrator in making the five-year full property valuation forecast, according to the tasks described above.

1. GATHER INPUT DATA - Flow Chart Step 1

This checklist summarizes the various sources of input data to be contacted prior to making the critical decision as to whether the yearly change in real property full valuation will *increase, remain constant,* or *decrease* over the next five years.

DATA SOURCE	TYPE OF DATA	CONTACTED
• Local Builders Associations, Major Housing Contractors	Status of construction of new housing over the next five years.	☐
• Local Planning Boards, Regional Planning Boards	Plans which may alter district housing patterns or population characteristics over the next five years.	☐
• Major Local Industries, Chamber of Commerce	Industrial and commercial trends which may alter housing patterns or population characteristics over the next five years.	☐
• Local Tax Assessors	Current trend in the district real property full valuation - increasing, remaining constant, or decreasing.	☐
• City, Town, and Village Clerks	Number of new building permits currently being issued.	☐
• Local and State Legislators	Pending legislation or activity that would alter the district's real property full valuation.	☐

All of the data sources specified above should be contacted prior to construction of a Form 2 - Analysis of Historical Full Property Valuation Data.

2. CONSTRUCTING A FORM 2 - Flow Chart Step 2

- Enter the required identification information in the spaces provided at the top of the Form 2. In this instance, the "Subject" of the Form 2 is "Full Property Valuation Forecast."

- Read through the instructions provided on the Form 2 itself. Note that the difference in this Form 2 and the one constructed in the forecast of long-range state aid completed previously is in the type of input data and the resultant product.

- Complete the first page of Form 2 according to instructions 1 and 2, using *Full Property Valuation data* for the preceding ten years. Here is a sample:

Year	School Year	Type of Historical Data (e.g. State Aid/WADA; Resident Population): *Full Property Valuation Data*	Yearly increase (+) or decrease (-) (Subtract CY-9 from CY-10; CY-8 from CY-9, etc.)
CY-10	1961-62	$110,000,435	$ --
CY- 9	1962-63	110,076,584	+ 76,149
CY- 8	1963-64	110,404,200	+ 327,616
CY- 7	1964-65	110,864,763	+ 460,563
CY- 6	1965-66	111,565,119	+ 700,356
CY- 5	1966-67	112,037,215	+ 472,096
CY- 4	1967-68	112,543,257	+ 506,042
CY- 3	1968-69	112,980,765	+ 437,508
CY- 2	1969-70	114,110,400	+1,129,635
CY- 1	1970-71	114,735,294	+ 624,894
Current Year	1971-72	$117,511,832	+$2,776,538
		Total Net Increase or Decrease:	+$7,511,397

2. CONSTRUCTING A FORM 2 (Continued)

- Select statistical Model I, II, or III on page 2 of Form 2 for use in making the full property valuation forecast.
  - This is done by analyzing the data obtained from the sources specified on the *input data checklist,* and deciding if the full property valuation can be expected to increase, remain constant, or decrease over the next five years.
  - Use the decision table below to assist in your selection of the proper statistical model.

IF Full Property Valuation is likely to --	THEN select
Increase over present levels	→ Model I - Maximum Change
Remain constant at present levels	→ Model II - Standard Change
Decrease from present levels	→ Model III - Minimum Change

NOTE: *Only one model is selected* for use in computing probable change in state aid.

- When the appropriate model has been selected, complete construction of the Form 2 according to the instructions for the model employed.

> Examples of the computation required by each model are found on the following page. *While all three models are completed as examples, note that this is for illustrative purposes only.* In actual completion of a Form 2, only one model is to be selected and used, based on an anticipated increase, constancy, or decrease of full property valuation in the district.

SAMPLE COMPUTATION: MODELS I, II, AND III - All three models completed for illustrative purposes only.

Model I - Maximum Change

Select any three years above which showed the greatest year-to-year *increase*; sum, and divide by 3 to obtain *maximum change*.

School Year	Yearly Change
1971-72	$2,776,538
1969-70	1,129,635
1965-66	700,356
3-year total	$4,606,529
3-year average	$1,535,509

Model II - Standard Change

Find total net increase or decrease above and divide by 10 to obtain *standard change*.

School Year	Yearly Change
1962-63	$ 76,149
1963-64	327,616
1964-65	460,563
1965-66	700,356
1966-67	472,096
1967-68	506,042
1968-69	437,508
1969-70	1,129,635
1970-71	624,894
1971-72	2,776,538
10-year total	$7,511,397
10-year average	$ 751,139

Model III - Minimum Change

Select any three years above which showed the least increase or the greatest decrease; sum and divide by 3 to obtain the *minimum change*.

School Year	Yearly Change
1963-64	$327,616
1968-69	437,508
1962-63	76,149
3-year total	$841,273
3-year average	$280,424

UPON COMPLETION, FORM 2 BECOMES DIRECT INPUT FOR COMPLETION OF FORM 14 - REAL FULL PROPERTY VALUATION FORECAST.

3A. CONSTRUCTING A FORM 14 - Flow Chart Step 3

NOTE: Form 14 is a dual purpose computer worksheet which serves to produce both a forecast of *Full Property Valuation* in the tax district and *Full Valuation Tax Rate per $1000* in the tax district. At this point in Planning Procedure 13, the School Business Administrator is using Form 12 to accomplish its former purpose -- Full Property Valuation Forecast.

- Enter the required identification information in the spaces provided at the top of the Form 14.
- Carefully read through the *Instructions* on Form 14, itself. Note the input required.
  - A completed Form 2 analysis of historical full property valuation data.
  - A decision as to whether full property valuation for the tax district will increase, decrease, or remain constant. (From Form 2 model selection.)
- After reviewing the sample Form 14 on the following page, and collecting the input data specified above, complete construction of the Form 14 according to the instructions on the form. Note that at this point in the procedure, only the "Full Valuation" column is relevant.

Form 14

Real Property Full Valuation and Full Property Valuation Tax Rate

Date *August 18*

District *Severn*

Person Completing *Shimkus*

Tax District *Carter Hill*

Instructions:

1. Obtain from Form 2 the maximum, standard, and minimum changes (Models I, II, and III) in the District's Total Real Property Full Valuation and the District's Full Valuation Tax Rate.
2. Indicate which model will be used and why.
3. Add the change to the current year's Full Valuation and the Full Valuation Tax Rate to obtain the forecast for the budget year.
4. Add the change to the budget year's forecast to obtain the forecast for Y1. Repeat through Y5.

Full Property Valuation:

Model I $

Model II $

Model III $ *280,424*

Model selected and rationale:

Model III - Minimum Change. Analysis of all input data indicates that full Property Valuation will decrease.

Full Property Valuation Tax Rate:

Model I $

Model II $

Model III $

Model selected and rationale:

Year	Full Valuation	Full Valuation Tax Rate per $1,000
Current 19*71*-*72*	$ *117,511,832*	$
Budget 19*72*-*73*	$ *117,792,256*	$
Year 1 19*73*-*74*	$ *118,072,680*	$
Year 2 19*74*-*75*	$ *118,353,104*	$
Year 3 19*75*-*76*	$ *118,633,528*	$
Year 4 19*76*-*77*	$ *118,913,952*	$
Year 5 19*77*-*78*	$ *119,474,800*	$

38. CONSTRUCTING A FORM 15 - Flow Chart Step 4

Form 15 is simply a Full Property Valuation Forecast summary of all tax districts within the school district. When a Form 14 has been completed for each tax district within the school district, Form 15 is constructed by:

- Completing the identification information at the top of the form.
- Entering the annual forecast full property valuations for each of the next five years for each tax district within the school district.

Here is a sample showing the summary of full property valuation for the school district:

INSTRUCTIONS:

1. Obtain Real Property Full Valuation Forecast for each taxing district from Form 14.
2. Sum for each year to obtain the total Real Property Full Valuation Forecast.

	Projected Real Property Full Valuation				
Taxing District	1972 Current Year	1973 Budget Year	1974 Year 1	1975 Year 2	
Carter Hill	$117,511,832	$117,792,256	$118,072,680	$118,353,104	$
Kensington	$ 94,240,000	$ 94,965,422	$ 95,201,653	$ 95,776,235	$
Gordo	$100,007,365	$100,247,222	$100,780,987	$101,078,554	$
	$	$	$	$	$
Totals:	$311,763,197	$313,004,900	$314,065,320	$315,207,893	$

4. PLOTTING HISTORICAL AND PROJECTED FULL PROPERTY VALUATION DATA
Flow Chart Step 5

The completed Form 2 and Form 14 serve as input for plotting the full property valuation of each tax district within the school district for each of the ten preceding years, and for the next five years. The resulting graph serves to display the anticipated directional trends in full property valuation in the tax district.

To construct the graph:

1. Establish a vertical graph axis to indicate *Full Property Valuation.*
2. Divide the vertical graph axis into a number of equal units to allow display of the lowest and highest dollar amounts of full property valuation in the particular tax district over the preceding ten years, and the forecasted five years.
3. Establish a horizontal graph axis to indicate *Year.*
4. Divide the horizontal axis into 15 even units to allow display of the preceding ten years and the forecast five years.
5. Plot the dollar amount of full property valuation for each of the preceding ten years from the Form 2 constructed for that tax district. Plot the amount for the forecast years from the Form 14 constructed for that tax district.
6. *Construct a graph for each tax district within the school district.*

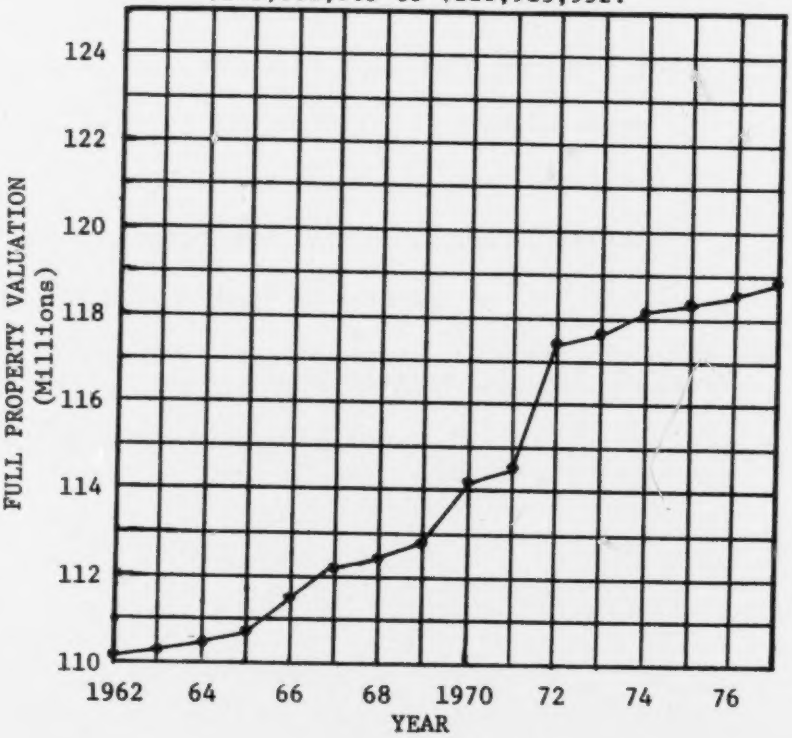
A sample graph is presented on the following page.

SAMPLE GRAPH - HISTORICAL AND PROJECTED FULL PROPERTY VALUATION FOR THE CARTER HILL TAX DISTRICT

This sample graph represents one tax district (Carter Hill) within the school district (Severn). It is based on the sample Form 2 and Form 14 previously included in this guide.

Time Frame - 1961-62 through 1976-77.

Valuation Range - Full property valuation in the District during the above period ranged from $110,000,535 to $118,913,952.



UPON COMPLETION, THE FULL PROPERTY VALUATION TREND GRAPH AND THE COMPLETED FORM 2 AND FORM 14 ARE PLACED IN THE DISTRICT DATA FILE FOR LATER USE IN ESTIMATING TOTAL DISTRICT REVENUE.

PROCEDURE 14: ESTIMATING SCHOOL DISTRICT REVENUE

Planning Procedure 14 charges the School Business Administrator with *estimating school district revenue* for the current year, budget year, and five years into the future. This revenue forecast will serve as reference data for future district Planning, Programming, and Budgeting activities. Obviously, the work of the School Business Administrator in generating the school district revenue forecast is most important to the workings of the PPB system in his district.

The tasks involved in making the school district revenue forecast are as follows:

1. Obtain required input data from the district data file:
    - Completed Form 12 - Federal Aid Forecast
    - Completed Form 12 - State Aid Forecast
    - Completed Form 13 - Sales Tax Forecast
2. Construct Form 16 - Estimated Revenue from Real Property Tax.
3. Plot on a graph the historical and projected district tax rate per thousand dollars of valuation.
4. Construct Form 17 - Revenue Forecasts Summary - on the basis of tasks 1-3 above.

The forms, examples, guidelines, and instructions contained in this guide have been designed to aid the School Business Administrator in accomplishing the school district revenue forecast for which he is responsible, according to the tasks outlined above.

1. GATHERING INPUT DATA - Flow Chart Step 1

The following completed Planning forms are to be pulled for use from the district data file:

FORM NO.	FORM TITLE	COMPLETED BY
12	Federal Aid 5-Year Revenue Forecast	Coordinator of Federally Funded Programs
12	State Aid 5-Year Revenue Forecast	School Business Administrator
13	County Sales Tax Revenue	School Business Administrator

Form 16, Estimated Revenue from Real Property Tax, requires the use of two other Planning forms -- a Form 2 for analysis of historical full valuation tax rate, and a Form 14 for projecting the increase in full valuation tax rate per $1,000 over the next five years.

2. CONSTRUCTING FORM 2 - Flow Chart Step 2

Prior to performing the Form 2 analysis of the district's full valuation tax rate per $1,000 over the last 10 years, resolve the following questions:

QUESTION	ANSWER SOURCE
- What pending legislation or planned activities might alter the current total tax rate on real property in the district?	Local newspapers, local and state legislators, local tax assessors.
- Will the current district tax rate on real property increase, remain constant, or decrease in the next five years?	Local and Regional Planning Boards, County Board of Supervisors, Municipal Clerks, County Budget Bureau.
- To what degree are the various demographic groupings within the district willing to support public education?	District data file, Assistant Superintendent for Research and Planning. (Note: Assumes COQ collected this specific data.)

Next in the Form 2 analysis, the full valuation tax rate for the past ten years is recorded on the first page of the Form 2. Here is a sample:

Year	School Year	Type of Historical Data (e.g. State Aid/WADA; Resident Population): *Full Valuation Tax Rate per $1,000*	Yearly increase (+) or decrease (-) (Subtract CY-9 from CY-10; CY-8 from CY-9 etc.)
CY-10	19*61*-*62*	*$14.00/1,000*	-
CY- 9	19*62*-*63*	*14.00*	*0*
CY- 8	19*63*-*64*	*15.25*	*+1.25*
CY- 7	19*64*-*65*	*15.25*	*0*
CY- 6	19*65*-*66*	*16.10*	*+0.85*
CY- 5	19*66*-*67*	*16.40*	*+0.30*
CY- 4	19*67*-*68*	*16.00*	*-0.40*
CY- 3	19*68*-*69*	*16.00*	*0*
CY- 2	19*69*-*70*	*16.75*	*+0.75*
CY- 1	19*70*-*71*	*17.50*	*+0.75*
Current Year	19*71*-*72*	*$18.50/1,000*	*+1.00*
		Total Net Increase or Decrease:	*+ $4.50/1,000*

Completion of the remainder of the Form 2 analysis requires selection of statistical Model I, II, or III, based on the answers to the three questions resolved earlier.

CONDITIONS	APPROPRIATE MODEL
Residents are willing to increase support of schools; local governments plan to decrease their share of real property tax levy; district's share of the real property levy is increasing.	Select Model I - Maximum Change - on Form 2.
Above conditions are likely to remain constant at the current level.	Select Model II - Standard Change - on Form 2.
Above conditions are likely to decrease.	Select Model III - Minimum Change - on Form 2.

Once the appropriate statistical model has been selected, based on the increase, constancy, or decrease of the conditions specified, the Form 2 analysis is completed by computing the yearly change in full valuation tax rate according to the model selected.

Here are sample computations for all three models. *Note that in actual construction of Form 2, only the model selected is used for computation of the yearly change.*

Model I - Maximum Change

Select any three years above which showed the greatest year-to-year *increase;* sum and divide by 3 to obtain *maximum change.*

School Year	Yearly Change
19*63*-*64*	*+ $1.25*
19*65*-*66*	*+ .85*
19*71*-*72*	*+ 1.00*
3-year total	*$3.10*
3-year average	*$1.03*

Model III - Minimum Change

Select any three years above which showed the least increase or the greatest decrease; sum and divide by 3 to obtain the *minimum change.*

School Year	Yearly Change
19*62*-*63*	*0*
19*64*-*65*	*0*
19*68*-*69*	*0*
3-year total	*0*
3-year average	*0*

Model II - Standard Change

Find total net increase or decrease above and divide by 10 to obtain *standard change.*

School Year	Yearly Change
19*62*-*63*	*0*
19*63*-*64*	*+ $1.25*
19*64*-*65*	*0*
19*65*-*66*	*+ .85*
19*66*-*67*	*+ .30*
19*67*-*68*	*- .40*
19*68*-*69*	*0*
19*69*-*70*	*+ .75*
19*70*-*71*	*+ .75*
19*71*-*72*	*+ 1.00*
10-year total	*$4.50*
10-year average	*$0.45*

3. CONSTRUCTING FORM 14 - Flow Chart Step 3

Upon completion of Form 2, the School Business Administrator must complete a forecast of the *full property valuation tax rate* for the next five years. This is accomplished by completing Form 14.

> NOTE: Form 14 is a dual purpose form. The School Business Administrator uses the tables and columns on the right side of the Form 14 to project full property valuation tax rate.

Here is a sample completed Form 14:

Full Property Valuation:	**Full Property Valuation Tax Rate:**
Model I $______	Model I $ 1.03
Model II $______	Model II $______
Model III $______	Model III $______
Model selected and rationale:	Model selected and rationale: Model I Maximum Change. Analysis of all input data indicates that full valuation tax rate will increase.

Year	Full Valuation	Full Valuation Tax Rate per $1,000
Current 1971-72	$ --	$ 18.50
Budget 1972-73	$ --	$ 19.53
Year 1 1973-74	$ --	$ 20.56
Year 2 1974-75	$ --	$ 21.59
Year 3 1975-76	$ --	$ 22.62
Year 4 1976-77	$ --	$ 23.65
Year 5 1977-78	$ --	$ 24.68

4. CONSTRUCTING FORM 16 - Flow Chart Step 4

Having completed a Form 2 analysis of full valuation tax rate per thousand for the preceding ten years, and a Form 14 forecast of the full valuation tax rate per thousand for the next five years, the School Business Administrator is prepared to construct a Form 16, which will result in an *estimate of revenue from real property tax for the budget year, and for five years beyond.*

This estimate, along with other projections from the district data file, serves as direct input for the final District Revenue Forecast.

In completing Form 16 - Estimated Revenue from Real Property Tax:

- Enter the identification information in the spaces provided at the top of the Form 16.
- Pull the completed Form 15 from the district data file.
- Contact the local tax assessor to determine the district's *equalization rate.*
- Complete the Form 16 according to the instructions on the form.

Here are sample computations from a Form 16.

Year	Estimated Full Valuation (From Form 15)	Estimated Full Valuation Tax Rate (From Form 14)	Equalization Rate	Estimated Property Tax Revenue
1972 Current	$ 117,511,832	$ 18.50/1,000	x 23	= $ 47,691,264
1973 Budget	$ 117,792,256	$ 19.53/1,000	x 23	= $ 50,120,588
1974 Year 1	$ 118,072,680	$ 20.56/1,000	x 23	= $ 52,910,861
1975 Year 2	$ 118,353,104	$ 21.59/1,000	24	= $ 61,335,784
1976 Year 3	$ 118,633,528	$ 22.62/1,000	x 24	= $ 64,403,760
1977 Year 4	$ 118,913,952	$ 23.65/1,000	x 24	= $ 67,455,008
1978 Year 4	$ 119,474,800	$ 24.68/1,000	x 24	= $ 70,795,152

UPON COMPLETION, FORM 16 SERVES AS DIRECT INPUT FOR COMPLETION OF FORM 17 - DISTRICT REVENUE FORECAST.

5. PLOTTING DISTRICT TAX RATE - Flow Chart Step 5

The completed Form 2 and Form 14 for full valuation tax rate per thousand, which served as input to Form 16, also serve as input to a graph of the tax rate over the preceding ten years and the coming five years. The resulting graph displays the historical and anticipated directional trend of the district full valuation tax rate per thousand.

To construct the graph:

1. Establish a vertical graph axis to indicate *Full Valuation Tax Rate per $1,000.*
2. Divide the vertical graph axis into a number of equal units to allow display of the lowest and highest dollar amounts of tax rate per $1,000 over the preceding ten and forecasted five years.
3. Establish a horizontal graph axis to indicate *Year*.
4. Divide the horizontal axis into 15 even units to allow display of the time frame of the graph.
5. Plot the dollar amount of full valuation tax rate per $1,000 for each of the preceding ten years from the Form 2. Plot the amount for the forecast years from the Form 14.

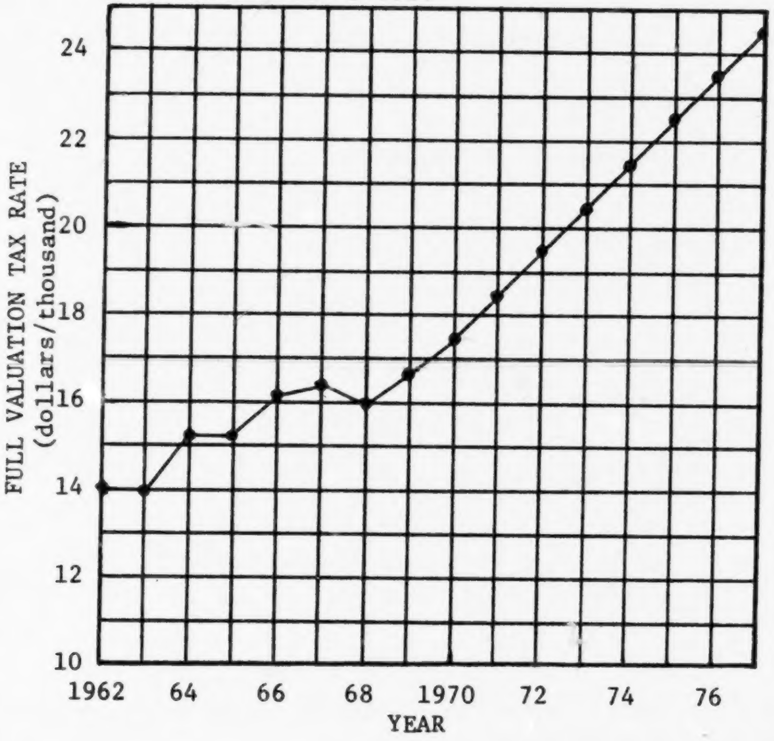
A sample graph is presented on the following page.

SAMPLE GRAPH - FULL VALUATION TAX RATE PER $1,000 - HISTORICAL AND PROJECTED FOR THE KENSINGTON SCHOOL DISTRICT

This sample graph represents the trend in full valuation tax rate per thousand over the preceding ten years and five years beyond the current year. It is based on the sample Form 2 and Form 14 previously included in this guide.

Time Frame - 1961-62 through 1976-77.

Tax Rate Range - Full valuation tax rate per $1,000 in the district during the above period ranged from $14.00 to $24.68.



UPON COMPLETION, THE FULL VALUATION TAX RATE PER $1,000 GRAPH AND COMPLETED FORM 2 AND FORM 14 ARE PLACED IN THE DISTRICT DATA FILE FOR LATER USE IN ESTIMATING TOTAL DISTRICT REVENUE.

6. CONSTRUCTING FORM 17 - Flow Chart Step 6

Form 17 is a "recorder worksheet" that results in a summary of estimated revenue for the budget year and for the next five years. At this point, all revenue forecasts required for completing the Form 17 summary should be included in the district data file. They include:

FORM NO.	TITLE	COMPLETED BY
12	Federal Aid 5-Year Revenue Forecast	Coordinator of Federally Funded Programs
12	State Aid 5-Year Revenue Forecast	School Business Administrator
13	County Sales Tax Revenue	" " "
16	Estimated Revenue from Real Property Tax	" " "
--	Other Revenue (e.g. contributions from industry and private citizens)	" " "

The School Business Administrator completes Form 17 by entering the required input from the above forms for each forecast year (Budget Year through Year 5)- and computing the total revenue from all sources for each forecast year.

A completed sample Form 17 is presented on the following page. It is based on the data contained in the various sample forms included in this guide.

NOTE: Form 13 - County Sales Tax Revenue - is produced in a Planning procedure not included in this guide.

SAMPLE FORM 17

Revenue Forecasts (Summary)

Date September 27, 1971

District Severn

Person Completing Ballew

Year	Federal Aid (From Form 12)	State Aid (From Form 12)	Sales Tax (From Form 13)	Real Property Tax (From Form 16)	Other Revenue	Total
1972 Current	$ 40,250	$ 3,308,966	$ 322,748	$ 47,691,264	$29,500	$51,392,728
1973 Budget	$ 36,000	$ 3,982,593	$ 348,855	$ 50,120,588	$30,000	$54,518,036
1974 Year 1	$ 30,000	$ 4,709,916	$ 374,962	$ 52,910,861	$30,500	$58,056,239
1975 Year 2	$ 24,000	$ 5,489,855	$ 401,069	$ 61,333,784	$31,000	$67,279,708
1976 Year 3	$ 18,000	$ 6,322,770	$ 427,176	$ 64,403,760	$31,500	$71,203,206
1977 Year 4	$ 12,000	$ 7,039,741	$ 453,283	$ 67,455,008	$32,000	$74,992,032
1978 Year 5	$ 6,000	$ 8,147,528	$ 476,519	$ 70,795,152	$32,500	$79,457,699

UPON COMPLETION, FORM 17 IS PLACED IN THE DISTRICT DATA FILE FOR REFERENCE IN DISTRICT PLANNING, PROGRAMMING, AND BUDGETING ACTIVITIES.

W.N.Y.
PPBS
PACKAGE

3

PROGRAM ANALYSIS CONCEPT LESSON AND PERFORMANCE GUIDES

WESTERN
NEW YORK
PPBS MODEL

An Operational Model for the Application
of Planning-Programming-Budgeting Systems
to Local School Districts

Post-Pilot-Test Version

PROGRAM ANALYSIS CONCEPT LESSON AND PERFORMANCE GUIDES

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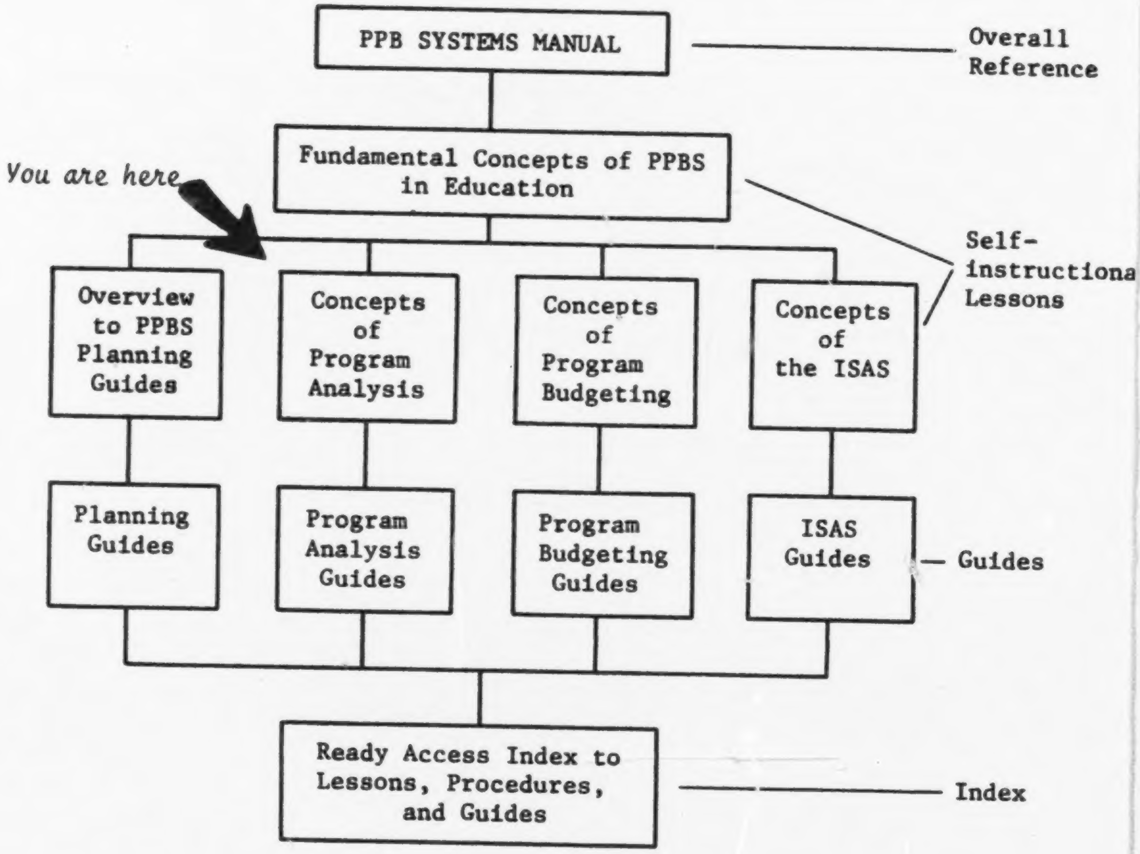
PROGRAM ANALYSIS

Concepts of Program Curricular-Fiscal Planning

--A Self-Instructional Lesson--

WESTERN NEW YORK PPBS TRAINING PACKAGE


PPB SYSTEMS MANUAL
Overall Reference
Fundamental Concepts of PPBS in Education
You are here
Self-instructiona Lessons
Overview to PPBS Planning Guides
Concepts of Program Analysis
Concepts of Program Budgeting
Concepts of the ISAS
Planning Guides
Program Analysis Guides
Program Budgeting Guides
ISAS Guides
Guides
Ready Access Index to Lessons, Procedures, and Guides
Index

INTRODUCTION

This self-instructional lesson is designed to acquaint you with a general model for the process of what is called *Program Analysis,* and to present certain specific concepts of *curricular-fiscal planning* in the context of that process. Note that the content of this lesson is limited to Procedure 25 (see PPBS Manual), which is but *one* of *six* Programming procedures. It was selected because *curricular-fiscal planning* is most basic to the total Program Analysis process.

The term "self-instructional" simply means that the lesson is designed to present content in an individualized, self-paced manner. It is our way of talking with you about the concepts of Program Analysis and curricular-fiscal planning. The lesson works best if you follow the directions literally, filling in the blank or checking a multiple-choice answer as indicated. The lesson should be completed in one sitting of no more than an hour, depending upon your own particular rate. Work at the pace most comfortable for you.

The lesson may prove helpful for future reference, especially if there is a considerable time lapse between when you complete it and when you begin an actual Program Analysis. With this in mind, a table of contents is provided on the last page, which will allow ready access to the concepts discussed herein.

Now, to begin at the beginning ...

WHAT IS "PROGRAM ANALYSIS"?

Fundamentally, Program Analysis is a *process of investigation* involving these steps:

Step 1: Determining the *as is* characteristics of a Program and comparing it to the *should be* characteristics.

Step 2: Recommending changes in the Program that will result in achievement of the *should be* characteristics.

Step 3: Translating the Program into quantities and costs of resources required by the recommended changes.

Step 4: Considering alternative methods of achieving Program objectives.

As is characteristics include data on the *effectiveness* and *costs* of the Program to date. *Should be* characteristics, as you might expect, are stated in the Program goals and objectives.

Here are a few examples of *as is* and *should be* characteristics. Try your hand at discriminating between them by checking the appropriate block.

	As is	*Should be*
1. By 1975, 90% of the students in the district schools will be participating in their respective student governments.	☐	☐
2. A survey of local employers reveals that 55% of district high school graduates do not know how to complete correctly a job application.	☐	☐
3. All students will acquire the reading, speaking, writing, and listening skills necessary to communicate successfully in today's complex society.	☐	☐
4. It is the consensus of the Industrial Arts instructors that the current program does not result in skills mastery sufficient for local job placement.	☐	☐
5. 77% of the eighth grade students scored below the state norm (69th percentile) on the NYS Achievement Survey.	☐	☐

- -

Feedback: The *as is* data items were 2, 4, and 5 -- with 1 and 3 representing data of the *should be* category. As you can see, the comparison in Step 1 of Program Analysis is between *where a program is* and *where we want it to be.*

Step 2 of the Program Analysis process requires recommending changes to improve the Program. What meaning do you think "improve" carries here?

a. Satisfy school board desires. ☐

b. Achieve existing Program objectives. ☐

c. Achieve reasonable existing, revised, or new Program objectives. ☐

- -

Feedback: While *a* or *b* might be termed "improvement," we think *c* best defines it in the context of Program Analysis. *Improving a Program* may require discarding existing objectives, restating them, and/or generating additional ones.

- -

How do you suppose the recommended changes are generated?

a. Developing multiyear Program objectives based on Step 1. ☐

b. Describing activities for achieving multiyear Program objectives. ☐

c. Describing how achievement of Program objectives can be measured. ☐

- -

Feedback: We hope you checked all three of the above choices because they are involved, in their a-b-c sequence, in generating recommended changes in a specific Program.

- -

Step 3 of Program Analysis calls for the translating of the Program into *resource quantities* (e.g., personnel, supplies, etc.), and then into resource costs. How would you accomplish this step?

a. Determine the budget for the Program and describe quantities of resources that would not exceed it. ☐

b. Determine the resource quantities dictated by the design of the *Program,* then cost them out. ☐

- -

Feedback: Yes, obviously *b* is the next logical step in that instructional activities indicate resources and quantities.

- -

Step 4 of the general Program Analysis requires *considering alternative methods* of achieving Program objectives. How do you think we are defining the phrase, *alternative methods*, in the context of Program Analysis?

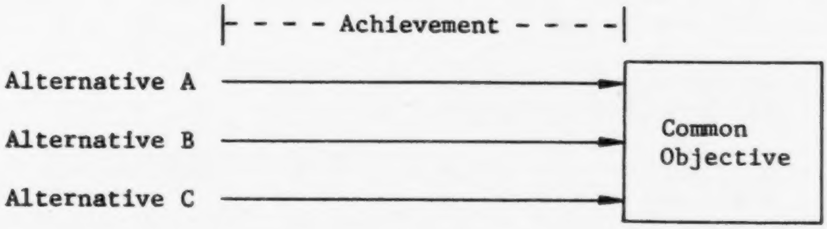
a. Various ways of achieving similar objectives. ☐

b. Various ways of achieving the same objectives. ☐

c. Same way of achieving similar objectives. ☐

Feedback: Our definition is *b* ... alternative methods are the various ways of achieving the *same objectives*. It is important to remember that the objectives are constant. What "alternates," or varies, is the method in which we achieve them.

Schematically, our definition of *alternative methods* looks like this:



As an example, let's assume that the objective is "getting to work in the morning." Describe your present method of getting to work as *Alternative A*.

Alternative A: ____________________

Now describe feasible alternative methods of getting to work as Alternatives B and C.

Alternative B: ____________________

Alternative C: ____________________

Feedback: Most of you probably drive to work in your own car and listed that as Alternative A. Other alternatives listed as B and C might include walking, taking the bus, bicycling, subway, car pool, or even jogging!

The point of the simple exercise on alternatives is made by the following questions:

	Yes	No
1. Can you now specify equipment and supplies required by each alternative?	☐	☐
2. Can you determine the relative cost of each alternative?	☐	☐
3. Can you predict the relative effectiveness of each alternative?	☐	☐

Feedback: *Yes* to all questions. In #1, equipment and supplies might include *automobile, gas and oil, bicycle, jogging shoes.* These can be "costed out" to respond to question #2. Question #3 involves examining each alternative against the other. Depending upon your situation, *driving* may be more effective than *taking a bus* or *subway,* while *bicycling* may be more effective than *driving.* Obviously, the most effective alternative for someone living and working in midtown Manhattan and someone in North Dakota is not necessarily the same.

What are the implications for educational planning and management? We left the big question unanswered. It is:

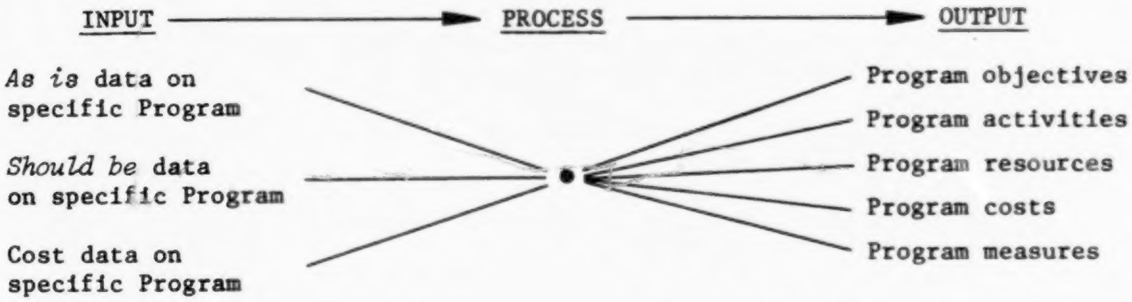
> *Given alternative methods of achieving a common objective, their relative costs, and predicted effectiveness, can you select the most cost-effective method of achieving the objectives?*

Yes, you can. That is precisely the purpose for considering alternative methods of achieving objectives within the Program Analysis process. It enables selection of the method that provides the *most effective* achievement at the *lowest cost,* or the method offering greatest return for each dollar expended.

Rules to keep in mind in considering alternatives:

- The objective or objectives *must remain constant.* All alternatives must be designed to achieve these common objectives.
- Alternatives should be considered *periodically.* Costs change, and new alternatives appear and become feasible over time, so that an annual review of alternatives is indicated.

Schematically, Program Analysis looks like this:



INPUT → PROCESS → OUTPUT

As is data on specific Program

Should be data on specific Program

Cost data on specific Program

Program objectives

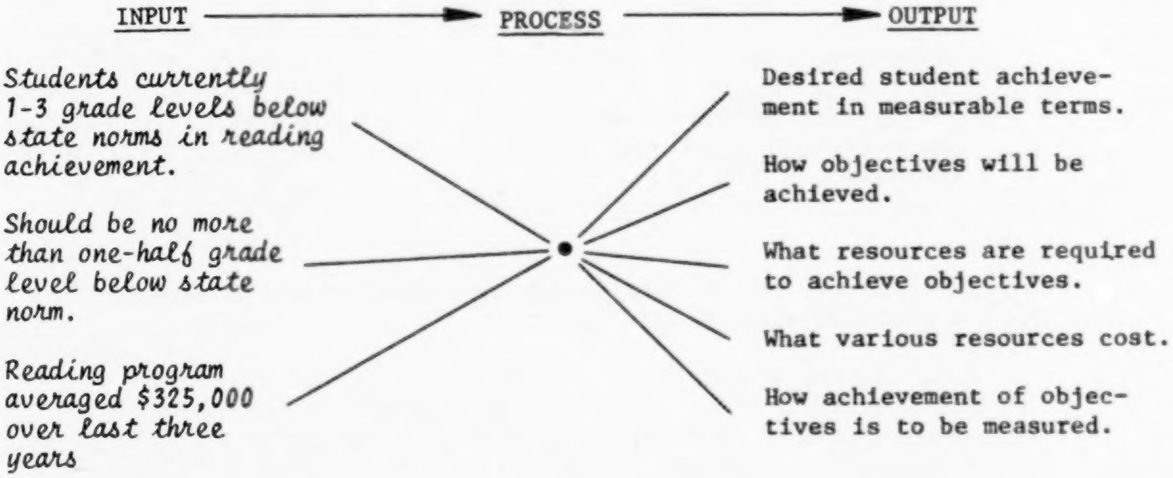
Program activities

Program resources

Program costs

Program measures

Example:



INPUT → PROCESS → OUTPUT

Students currently 1-3 grade levels below state norms in reading achievement.

Should be no more than one-half grade level below state norm.

Reading program averaged $325,000 over last three years

Desired student achievement in measurable terms.

How objectives will be achieved.

What resources are required to achieve objectives.

What various resources cost.

How achievement of objectives is to be measured.

The output of the Program Analysis process is a *multiyear Program curricular-fiscal plan* which will become input to the Educational Planning Council as it develops a district-wide curricular-fiscal plan for all Programs.

As a process, Program Analysis can be performed at any level of district organization. Obviously, the higher in the district structure, the more general the study that can be performed. For purposes of this lesson, we are concerned with Program Analysis where it is performed in greatest detail: at the level of the *Program Element* and *Program*. Analysis of the various Program Elements serves as input for analysis of the Program that they comprise. Analysis of the Program results in a multiyear curricular-fiscal plan which specifies objectives, measures, experiences, resources, and costs.

The specific concepts presented in this lesson are applicable to the process of Program Analysis at both the *Program Element* and *Program* level.

SO WHAT?

Now that you are familiar with a very general model for the process of Program Analysis, you may be wondering *why* it is done? Let's test your opinion at this point ...

Program Analysis is performed:

a. To satisfy requirements of the PPBS model. ☐

b. To direct effective planned change in district Programs. ☐

c. To evaluate effectiveness of various operational Programs. ☐

Feedback: We hope you eliminated *a* immediately, and *c* after some thought. That leaves *b*, which sums up what Program Analysis is all about -- a process for directing effective planned change. Choice *c* is correct, but too restrictive, as it represents only one aspect of the process, as you will see in later pages of this lesson.

SUMMARY OF GENERAL CONCEPTS

Check off these fundamentals of Program Analysis as you recall them:

☐ Program Analysis is a process of investigating a specific Program in terms of achievement compared to objectives. *Page 2.*

☐ Program Analysis involves specification of the *as is* and *should be* characteristics in measurable terms. *Page 2.*

☐ Program Analysis involves periodic consideration of *alternative methods* of achieving Program objectives and selection of the method offering the most cost-effective achievement. *Pages 4-5.*

☐ Program Analysis requires recommending changes in the Program or Program objectives so as to move it closer to desired *should be* characteristics. *Page 3.*

☐ Program Analysis requires translating a Program into resource quantities and costs required over a multiyear period. *Page 3.*

☐ Program Analysis, as a process of investigation, can be performed at any level of district organization. *Page 6.*

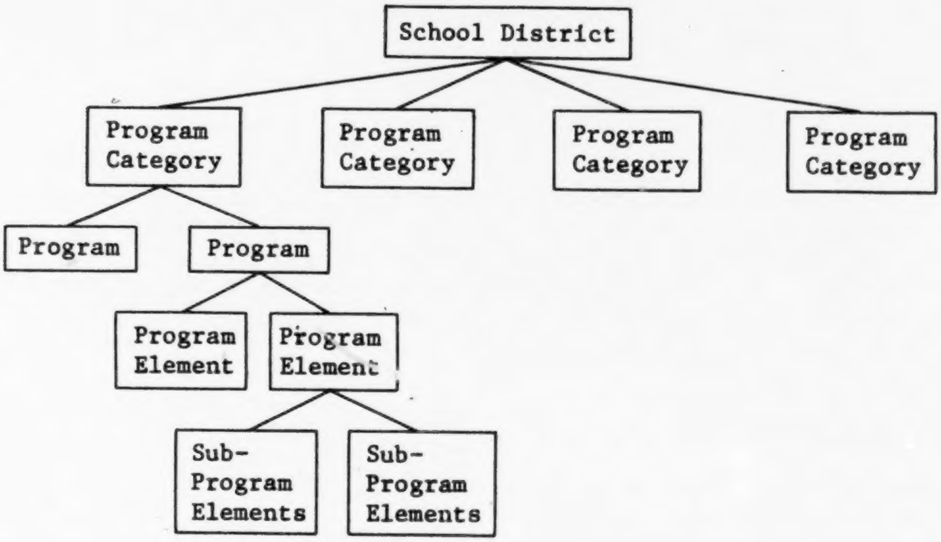
☐ Program Analysis results in a multiyear Program *curricular-fiscal plan. Page 6.*

The remainder of this lesson will deal with the specific concepts that facilitate preparation of a Program curricular-fiscal plan. Make certain you are familiar with the above concepts before going on.

PROGRAM ANALYSIS AND PROGRAM STRUCTURE

To understand how Program Analysis is accomplished in examining a given Program, it is essential to understand the structure and roles of general Program Structure. *Program Structure* is a hierarchical organization defined by district objectives as they progress from general to specific.

Program Structure by Building


School District
Program Category
Program Category
Program Category
Program Category
Program
Program
Program Element
Program Element
Sub-Program Elements
Sub-Program Elements

Here is a typical example described according to the *Program Structure* model:

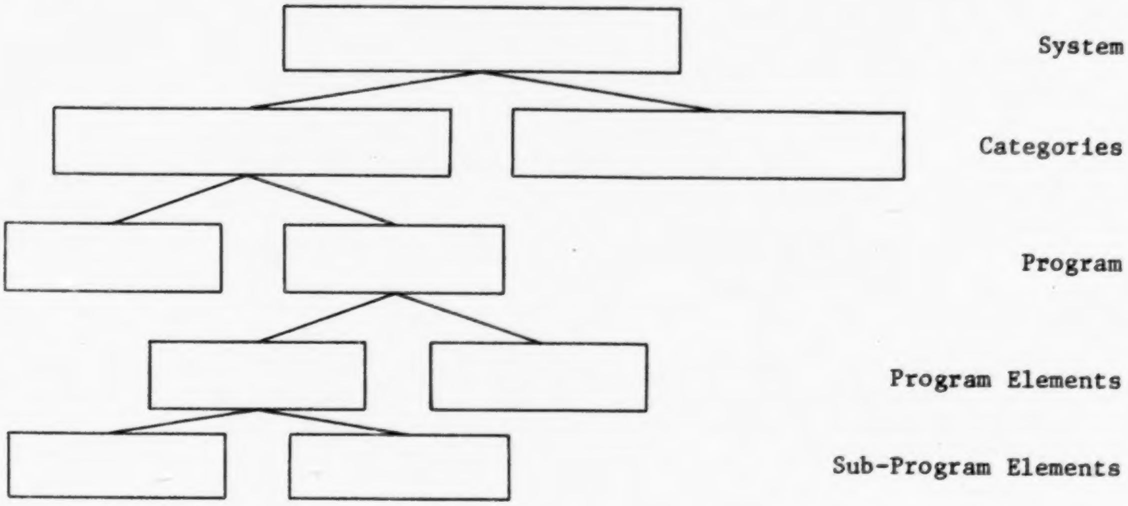
Cherokee School District -- School System
Instructional Programs -- Program Category
Millard Fillmore High School -- Program
Language Arts -- Program Element
11th Grade English -- Sub-Program Element

This lesson is concerned with the roles involved at the *Program, Program Element*, and *Sub-Program Element* level -- namely, the Program Director and the Program Element Coordinator.

NOTE: *Program Structure by Building* is presented for illustrative purposes in this lesson, in that it is probably the most common school organization model. Options for Program Structure by discipline or by instructional emphasis, are not precluded by the examples presented.

Using the following components, complete the Program Structure schematic below. You may refer to the opposite page for guidance.

Components: Woodworking, Instructional, Highland Intermediate, Pinecrest Public Schools, Auto Repair, Mathematics, Emerson Elementary, Instructional Support, Industrial Arts.



Feedback: From the top, *System* - Pinecrest Public Schools; *Categories* - Instructional, Instructional Support; *Programs* - Highland Intermediate, Emerson Elementary; *Program Elements* - Industrial Arts, Mathematics; *Sub-Program Elements* - Auto Repair, Woodworking.

Remember that we have stated interest in Program Analysis as performed by two roles: Program Director and Program Element Coordinator. Which definition below best describes the role of Program Director? Of the Program Element Coordinator?

	PD	PEC
a. Director of all Programs in a specific category, e.g., Instructional Support Programs.	☐	☐
b. Administrator of planning, implementing, and monitoring a specific Program, e.g., Woodlawn High School.	☐	☐
c. Administrator of planning, implementing, and monitoring a specific Program Element, e.g., 10th Grade Mechanical Drawing.	☐	☐

Feedback: Of the three choices, *b* best fits the role of Program Director. Obviously, *c* is then the role of the Program Element Coordinator. For more complete role descriptions, see Functions #7 and 8 in the PPBS Manual.

CONCEPT: PROGRAM ANALYSIS BEGINS AT THE BOTTOM

"Bottom" in this usage is *not* a demeaning term. It is used simply to indicate that Program Analysis is initiated by the Program Element Coordinator, at the most specific point in structure where first-hand data of the various Program Elements comprising the Program under study are available.

The first task of the Program Element Coordinator, in performing Program Analysis, is to identify multiyear Program Element objectives. Why?

a. They allow suggesting revisions to the Program Element. ☐

b. They specify the *should be* characteristics of the Program Element. ☐

c. They indicate resources required by the Program Element. ☐

Feedback: The "why" here is best described by *b*. Consistent with the general Program Analysis model, the *should be* or desired results of the Program Element must be specified as a first step.

If the multiyear objectives of a specific Program Element represent the desired results of that Program Element over time, what do the multiyear objectives of *all* Program Elements within a Program comprise?

____

____

____

Feedback: We hope you said something like, "They make up the *should be* characteristics (or desired results) of the Program under study." The sum of the Program Elements *is* the Program. If you missed it, review the Program Structure diagram on page 6.

It should be clear now what "begin at the bottom" means. In essence, each Program Element Coordinator performs Program Analysis on his Program Element and provides input in the form of a Program Element Summary to the next higher level -- the Program Level.

How does the Program Element Coordinator go about identifying the multiyear objectives of his Program Element?

a. Reviewing the multiyear goals and objectives stated by the Board of Education. ☐

b. Reviewing the multiyear Program Element objectives described previously, generated by the teachers working within the Program Element. ☐

c. Reviewing the Program Element Summary that resulted from last year's analysis of the Program Element. ☐

- -

Feedback: Yes, all three are correct. All are prime sources of data on the multiyear objectives of the particular Program Element.

- -

Once the multiyear Program Element objectives, or the *should be*, have been identified, what is the next logical step for the Program Element Coordinator?

a. Discard those objectives that were not met. ☐

b. Determine how effective the Program Element was in achieving each of its objectives. ☐

c. Describe revisions to the Program Element so that it will meet the objectives. ☐

- -

Feedback: Yes, *b* must be accomplished before *a* or *c*, which are done later in the Program Analysis process.

- -

How can the Program Element Coordinator determine to what degree each of the Program Element objectives were met?

a. Measure performance at the end of the Program Element experience designed to achieve the objective. ☐

b. Measure performance at the completion of the Program Element for the school year. ☐

c. Establish a "before and after" measure scheme to quantify progress toward each objective. ☐

- -

Feedback: The correct choice here is *c*. While *a* or *b* will tell you what the level of *terminal performance* (final desired performance) is, we feel that quantifying progress by measuring performance *before* the Program Element experiences and then *after* those experiences is most helpful.

CONCEPT: QUANTIFYING PROGRESS TOWARD OBJECTIVES

Given the Program Structure demonstrated earlier, suppose that a multi-year Program Element objective is:

> "By the end of the 1976-77 school year, 80% of the students in the 7th Grade Language Arts classes will achieve or exceed the 78th percentile on the XYZ Standardized Reading Achievement Test."

Data:
- In the year prior to the implementation of the Program Element, the average score of 7th Graders on the test was 65% at the 58th percentile.
- On the test administered after the first year of the Program Element, the average score of the 7th Graders was 70% scoring at the 66th percentile.

Answer these questions:

1. What are the *should be* or desired results of the Program Element? ____________________
2. What was the level of performance of the students entering the Program Element? ____________________
3. What was the level of performance of the students as they exited from the Program Element? ____________________
4. Was the specific objective fully achieved? ____________________
5. Are revisions to the Program Element experiences for the specific objective called for? ____________________

Feedback:
1. 80% to meet or exceed 78th percentile on the test.
2. 65% at the 58th percentile.
3. 70% at the 66th percentile.
4. No -- that would require 80% at the 78th percentile.
5. We don't know yet. The expected results at the end of Year 1 are not stated, and we don't have data on achievement of other objectives.

A nice little example -- one that lends itself to quantifying progress toward objectives. But what about the other more nebulous areas where measurement is more difficult. Let's look at an example.

Let's suppose this time that the Program Category is *Operational Support*, the Program is *Plant Operations*, and the Program Element is *Regular Maintenance of Classrooms*.

Program Element Objective: By the end of Year 1, requests for routine classroom maintenance from teachers will be answered prior to the end of the second school day following receipt of the request by the chief custodian.

We need to measure *entry level* performance, or how long it takes for a request for regular maintenance to be answered prior to implementation of the Program Element. How could this be done?

a. Survey classroom teachers. ☐

b. Review current objectives and standards for Regular Classroom Maintenance. ☐

c. Monitor maintenance requests in a sampling of classrooms over a period of time. ☐

- -

Feedback: Sure, all of the above, and you could suggest others.

- -

How about measuring *exit level* performance -- how long it takes for a regular maintenance request to be answered at the end of Year 1 of Program Element implementation. How can we measure that?

____

____

- -

Feedback: Did you say, "Use *a* and *c* above" or something similar? Any feasible method of determining how long it takes to get a maintenance request answered is correct.

- -

The message here is, "Measure entry and exit level performance in any feasible manner to a level helpful in quantifying progress toward the objective." Some sample measures available:

- Results of State normative tests.
- Teacher-constructed mastery tests.
- School-administered standardized achievement tests.
- Performance survey.
- Performance observation.

CONCEPT: DETERMINING RESOURCES REQUIRED - CONVERTING QUANTITY TO COST

Program Analysis at any level requires identification of resources required for implementation, costing out of those resources, and projecting their cost for five years beyond the current year. This is accomplished by completing Form 21 -- *Quantity and Cost of Resources*. The accompanying guidance package provides step-by-step assistance in completing Form 21. For the purposes of this lesson, we need to consider *what* resources are to be identified, and how they are converted into dollar cost.

Form 21 calls for specification of resources in four categories:

- Personnel - Administrators, teachers, aides, etc.
- Equipment - Desks, AV equipment, tables, etc.
- Supplies - Books, paper, pencils, workbooks, etc.
- Other - Transportation, building space, etc.

Read the following abbreviated description of Program Element experiences scheduled for implementation, and then answer the questions on the following page.

The Program Element under study is middle school social studies. The target population is 350 seventh graders and 362 eighth graders, excluding all students identified as having specific learning handicaps.

The planned experiences call for the following steps:

1. Reducing *student/teacher ratio* from the present 27/1 to 15/1.
2. Use of *self-instructional minicourses* of an individualized nature, allowing students to progress at their own rate.
3. Establishing a learning center in each classroom to consist of *five study carrels* allowing individual access to audio cassette, film loops, slides, and film strips.
4. Conducting *three field trips* to local and county government offices.

The present basal texts in social studies in both grades will be retained as supplementary reference materials.

Analyze the data on the preceding page to answer these questions --

1. Will resources in the *Personnel* category increase or decrease? ____________________

2. How do you know? ____________________
____

3. What resources are required under the *Equipment* category? ____________________

4. Under which category would you identify the quantity of self-instructional minicourses to be purchased? ____________________

5. The three planned field trips require resources in which category? ____________________

- -

Feedback:
1. Increase.
2. Decreasing the student/teacher ratio means hiring more teachers.
3. Study carrels - AV equipment.
4. Supplies.
5. *Other* - transportation.

- -

OK, suppose we determine that we need the following under the Form 21 resource categories:

- Three additional teachers.
- 17 self-instructional minicourses in sufficient quantity for individual use.
- 50 study carrels.
- 60 round-trip bus rentals.

How do we determine the cost of resources per category? ____________________
____

- -

Feedback: Of course, the *quantity* is multiplied by the *unit cost*, which may be an annual salary, cost of one minicourse, cost of one study carrel, etc.

- -

CONCEPT: DESCRIBING EXPECTED RESULTS IN TERMS OF ACHIEVEMENT OF OBJECTIVES

Program Analysis at the Program Element level and Program level requires stating multiyear objectives. That is, each performance area included in the Program Element or Program has objectives stated for the current year and for each year of the three-to-five-year projection. One purpose of these yearly objectives is to describe expected results of the Program Element or Program *in terms of achievement of objectives.*

If a Program objective is:

> By 1975, a minimum of 45% of the graduating seniors will receive New York State Regents Diplomas, with a minimum of 20% receiving merit diplomas.

In terms of achievement of objectives, can the 45% and 20% criteria be expected at the end of 1972? ____________

Feedback: No, that is the final performance level desired by 1975. If it can be met at the end of 1972, it was not a valid objective to begin with.

What level of performance can be expected by the end of 1972?

a. 25% receive Regents Diplomas, 15% receive merit diplomas. ☐
b. 35% receive Regents Diplomas, 20% receive merit diplomas. ☐
c. Can't be determined from the data presented. ☐

Feedback: Of course, *c* is what you selected if you recall the general Program Analysis model presented at the outset of this lesson.

What additional data are needed before specifying the expected results in terms of achievement of objectives at the end of 1972?

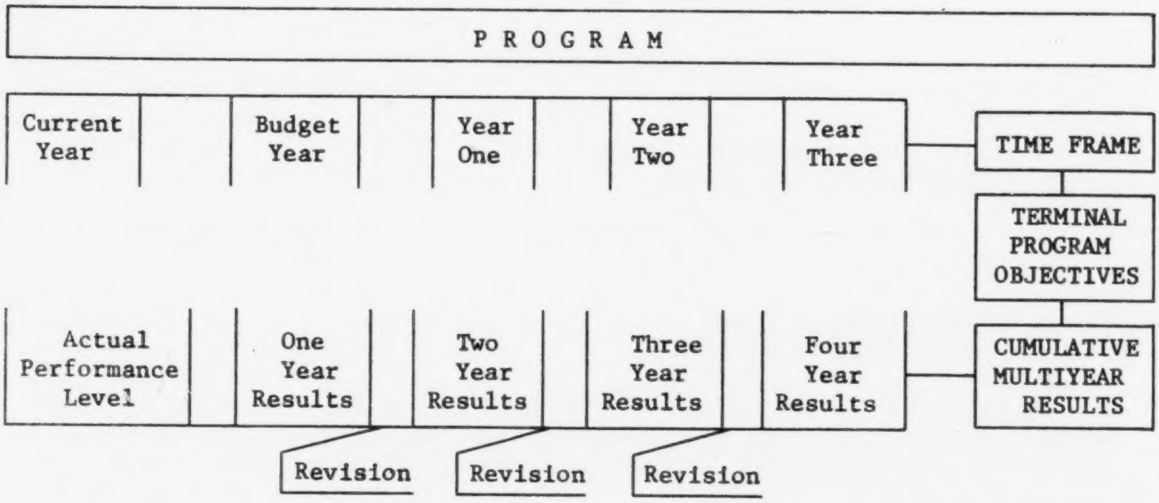
a. Requirements of Regents and merit diplomas. ☐
b. State norms on diplomas issued annually. ☐
c. Present level of performance of district students in earning each type of diploma. ☐

Feedback: Again, *c* is the choice consistent with the Program Analysis model. It represents the *as is* performance level.

Once the *final level* of performance and *present level* of performance are known, milestones in the form of annual results can be described in terms of achievement of objectives. These are educated "guesstimates" based on characteristics of the target population as to how much progress toward the final goal they will make over each year of the projected operation of the Program or Program Element.

What this really says is that *achievement of final desired results is the sum of successive approximations of achievement over the total years of the Program time frame.*

Schematically, it looks like this:


PROGRAM
Current Year
Budget Year
Year One
Year Two
Year Three
TIME FRAME
TERMINAL PROGRAM OBJECTIVES
Actual Performance Level
One Year Results
Two Year Results
Three Year Results
Four Year Results
CUMULATIVE MULTIYEAR RESULTS
Revision
Revision
Revision

REVIEW

These are the specific concepts of Program Analysis that we have presented to this point. Check them off as you recall them.

☐ Program Structure is a hierarchial organization defined by school district objectives as they progress from general to specific.

☐ Program Analysis begins at the bottom, or more specific component of the Program Structure.

☐ At any level of the Program Structure, statements of objectives equate to specification of the *should be* or desired performance criteria.

☐ Quantifying progress toward objectives requires identification of both the entry and exit levels of performance.

☐ Experiences designed to meet specific objectives dictate the required resources in categories of personnel, equipment, supplies, and miscellaneous.

☐ Alternative experiences are periodically considered to insure that the most cost-beneficial achievement of objectives results.

☐ Quantities of resources required are translated into dollar cost by multiplying the quantity by the unit cost of the resource.

☐ Achievement of final desired objectives is the sum of successive approximations of achievement over the total years of the Program time frame.

CONCEPT: DEVELOPING OBJECTIVES FOR THE PROGRAM AND PROGRAM ELEMENT

Let's review the anatomy of a well-built objective. It has these characteristics:

1. Identifies the performer -- *"2nd Grade students"*
   (TARGET POPULATION)
2. Specifies the desired performance -- *Discriminate between sentences and sentence fragments.*
   (TERMINAL PERFORMANCE)
3. Specifies performance criteria -- *By correctly identifying 15 of 20 samples.*
   (PERFORMANCE CRITERIA)
4. States conditions of performance -- *In a standard classroom situation.*
   (PERFORMANCE CONDITIONS)
5. Establishes performance limits -- *Samples construction limited to Dolch basic word list.*
   (PERFORMANCE LIMITS)

An objective is a statement of measurable, desired result to be accomplished within a specified time period. It serves to "close the gap" between current actual performance and desired or "mastery" performance, within a specified time frame.

Try your hand at dissecting the following objective according to the anatomy presented above.

"On completion of the unit on types of sentences, 6th Grade students enrolled in regular Language Arts classes will demonstrate their ability to recognize and identify the five sentence types presented by correctly identifying 45 of 50 sample sentences on a department-wide, teacher-made test. All students will complete the test within one 50-minute class period. Students are not responsible for recognition and identification of sentence types other than those presented in the unit."

In the space provided, list the components of the objective.

TARGET POPULATION

TERMINAL PERFORMANCE

PERFORMANCE CRITERIA

PERFORMANCE CONDITIONS

PERFORMANCE LIMITS

Population - 6th grade Language Arts students in regular classes.
Performance - Recognize and identify five sentence types.
Criteria - Correctly identify 45 of 50 sentences within 50 minutes.
Conditions - Written classroom teacher-made test.
Limits - Not responsible for sentence types other than the five specified in the instructional unit.

An objective is an objective, whether it is stated for a Program Element or Program. Good objectives possess the characteristics discussed on the previous page. However, the relationship between objectives at the Program Element level and objectives at the Program level represents an interesting and essential concept.

Consider this. If the *objective* is:

> The student will be able to successfully make eight of ten free-throw shots with a standard basketball from the 15-foot free-throw line. No more than 10 seconds shall elapse between shots.

Assuming the student has little or no knowledge of basketball, it is obvious that in order to achieve the above objective, he must first be able to do these things:

1. Identify the free-throw line.
2. Assume a proper shooting stance.
3. Aim the free-throw shot.
4. Propel the ball along the aimed direction toward the basket.
5. Accomplish 1-4 within ten seconds.

These are skills that *enable* the student to achieve the terminal performance objective stated above, although much practice may be required between mastering the enabling skills and meeting the stated criteria.

Now consider this:

> PROGRAM OBJECTIVE: "Senior Business Education Students will possess sufficient skills at a level of proficiency to enable them to meet Western New York employment criteria and/or to pass Civil Service Entrance Examinations for clerical/steno positions."

Speculate as to what Program Elements are required to enable the achievement of the objective from the Business Education Program.

Feedback: You might have listed Typing, Business Math, Office Practice, Bookkeeping, Office Machines, Stenography -- all the enabling skills, categorized by Program Element, that result in achievement of the Program objective stated.

CONCEPT: ACHIEVEMENT OF FINAL *PROGRAM* OBJECTIVES IS CONTINGENT UPON ACHIEVEMENT OF THE OBJECTIVES OF THE COMPONENT *PROGRAM ELEMENTS*.

CONCEPT: DEVELOPING A CURRICULAR-FISCAL PLAN

A curricular-fiscal plan is defined as:

> A detailed document of the events or activities which are proposed to accomplish given objectives for a definite period of time (3-5 years) including financial costs.

Using your knowledge of the concepts presented in this lesson, answer these questions.

1. Does Program Analysis require stating specific objectives? ______________
2. Does it require stating objectives for a multi-year time period (3-5 years)? ______________
3. Does it require specification of activities proposed to achieve the objectives? ______________
4. Does it require translating the activities into resources and then into dollar costs? ______________
5. Based on your answers to 1-4 above, what is the relationship between Program Analysis and the curricular-fiscal plan? ______________

____

- -

Feedback: 1-4, *yes*. (If you missed #1, then refer to pages 8-9.
#2, pages 14-15.
#3, pages 12-13.
#4, pages 12-13.)

5. Your answer should state that the curricular-fiscal plan is the product of Program Analysis.

- -

At what level of the Program Structure is a curricular-fiscal plan developed?

a. Program Element level. ☐
b. Program Element and Program level. ☐
c. At all levels from Program Element to School System. ☐

- -

Feedback: All choices are correct, but *c* is the most correct and makes our point. Just as the process of Program Analysis is performed at all levels of Program Structure, so are curricular-fiscal plans developed at all levels.

- -

At what level of the Program Structure is initial development of all district curricular-fiscal plans begun?

a. At the "top," or school-board level. ☐
b. In the "middle," or Program level. ☐
c. At the "bottom," or Program Element level. ☐

- -

Feedback: Yes, *c* is correct. Like Program Analysis, curricular-fiscal planning begins at the most specific level and develops upward through the various levels of Program Structure.

LEVELS OF CURRICULAR-FISCAL PLANNING

This chart depicts the roles and products of C-F Planning at its various levels in the school system.

LEVEL	PRODUCT	ROLE
District	District Curricular-Fiscal Plan constructed from all Program Memoranda.	Educational Planning Council
Program	Program Memorandum - Summary of Program Curricular-Fiscal Plan.	Program Director
Program	Revisions to Recommended Curricular-Fiscal Plan.	Program Director
Program/Program Element	Recommended Program Curricular-Fiscal Plan.	Program Committee*
Program/Program	Revisions to Program Element Summaries.	Program Committee*
Program Element	Program Element Summary Program Element Summary Program Element Summary	Program Element Coordinator

*Program Committee = Program Director and all Program Element Coordinators

1. At what level would the curricular-fiscal plan show the greatest detail?
____

2. At what level would the curricular-fiscal plan be most general? ________
____

3. What products represent summarized detail? ______________
____

- -

Feedback:
1. At the bottom, or Program Element level.
2. At the top, or district level.
3. Recommended Program Curricular-Fiscal Plan, Program Memorandum, Program Element Summary.

- -

The characteristics of a curricular-fiscal plan are the same at any level of Program Structure: objectives, activities, resources, cost, and time frame are specified. The plans differ from level to level only in their degree of detail.

SUMMARY OF CONCEPTS

This lesson has attempted to acquaint you with the following concepts in the context of the Program Analysis process. Check them off as you recall them.

☐ Program Analysis is a process of investigation resulting in specification of multiyear objectives, activities to achieve those objectives, resources required by the activities, and multiyear costs of the resources.

☐ Program Analysis begins with examination of the *as is* characteristics as compared to the *should be* characteristics.

☐ The process of Program Analysis serves to direct effective planned change in school system Programs.

☐ The product of Program Analysis is a multiyear curricular-fiscal plan.

☐ Program Analysis begins at the "bottom" -- at the Program Element level where Planning is done in greatest detail.

☐ Program Analysis input flows upward, from the Program Element level to the district level, through a series of reviews and summarizations.

☐ Quantifying progress toward objectives involves measuring entry level and exit level performance of the population.

☐ The activities specified to achieve objectives dictate the resources required in categories of personnel, equipment, supplies, and miscellaneous.

☐ Program Analysis involves periodic consideration of *alternative methods* of achieving Program objectives and selection of the method offering the most cost-effective achievement.

☐ Program costs are the product of resource quantity times the item cost of the resource.

☐ Achievement of final desired objectives equals the sum of achievement of the component enabling objectives.

☐ An objective is a statement of measurable desired result to close the gap between current actual performance and desired "mastery" performance within a specified time frame.

☐ A curricular-fiscal plan is the document which details multiyear objectives, activities, resources, and costs.

Use this checklist and the work-flow diagram on the facing page as a "memory jogger" prior to beginning actual Program Analysis.

PROGRAM ANALYSIS WORK FLOW

PROCEDURE 25: PREPARING A CURRICULAR-FISCAL PLAN FOR EACH PROGRAM

Program Element Coordinator	Program Director	Program Committee
1. Performs Program Analysis on specific Program Element.		
2. Documents analysis results in a Program Element Summary; forwards to Program Director.		
	3. Reviews all Program Element Summaries.	
	4. Conducts meeting of Program Committee.	
		5. Develops Program Objectives from Program Element Summaries.
		6. Selects one or two Program Elements for an ISAS.*
		7. Reviews recommendations of Program Element Coordinators.
		8. Recommends multi-year curricular-fiscal plan to Program Director.
	9. Reviews and revises recommended curricular-fiscal plan.	
	10. Summarizes final curricular-fiscal plan in Program Memorandum; forwards to Educational Planning Council.	

*Instructional Systems Analytical Study.

WHERE TO FROM HERE?

This lesson has attempted to acquaint you with those concepts of Program Analysis that seem to be most basic and facilitating to performing the process of developing Program and Program Element curricular-fiscal plans.

The *guidance package* which accompanies the lesson is designed to assist you in actually developing the curricular-fiscal plan. The tasks and steps of Procedure 25 of the PPBS Manual have been translated into *performance aids* of various types, including worksheets, checklists, examples, sample formats, and references.

The guidance package is actually composed of three separate guides, which are used according to role in the process of Program Analysis. These are:

Guide	User
Program Analysis Guide #1 --	Program Element Coordinator
Program Analysis Guide #2 --	Program Director
Program Analysis Guide #3 --	Program Committee

Since the Program Committee is composed of Program Element Coordinators and the Program Director, it will be used by both roles in a group effort.

The blank forms, worksheets, checklists, etc. contained in the guides are for illustrative purposes only, and can be reproduced locally in quantity as needed.

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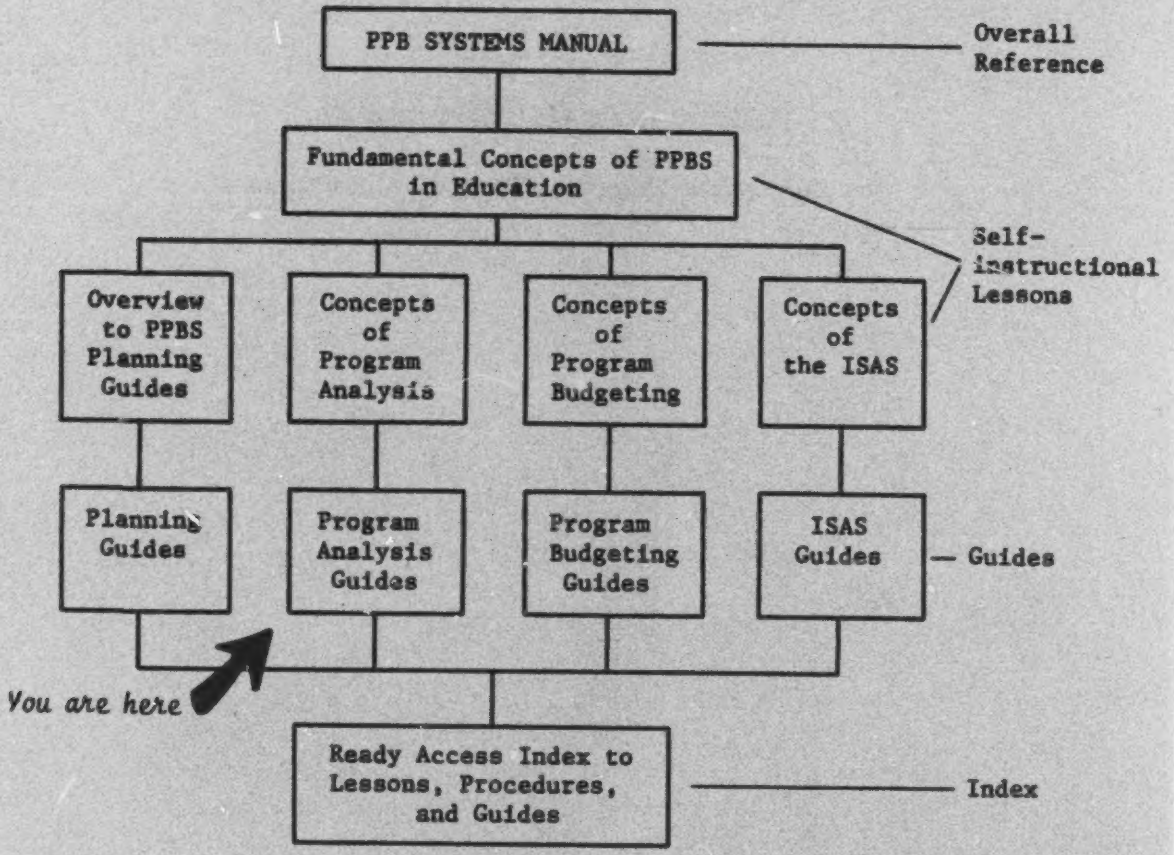
PROGRAM ANALYSIS GUIDE #1

for use by the Program Element Coordinator

WESTERN NEW YORK PPBS TRAINING PACKAGE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PROGRAM ANALYSIS GUIDE #1

PURPOSES OF THIS GUIDE

Program Analysis Guide #1 has been designed as the first of a series of three guides which combine to assist in *preparing a curricular-fiscal plan for each Program.* (PPBS Procedures 25 and 26.) The focus of Guide #1, which is used by the various Program Element Coordinators, is to assist in development of *individual curricular-fiscal plans* for their Program Element. The *sum* of the various curricular-fiscal plans developed, after several reviews and revisions, is the *Program curricular-fiscal plan.*

You will recall from the self-instructional lesson on Program Analysis concepts that a curricular-fiscal plan at any level of the Program structure is a document which serves to detail *multiyear objectives, experiences, resources, and costs.* Guide #1 aids the Program Element Coordinator in the development of *two forms* which combine to comprise the curricular-fiscal plan for his Program Element. These are:

Form 20 -- Program Element Summary --

> Documents multiyear objectives, measures of effectiveness, experiences, progress toward achievement, alternative experiences considered, reasons for not selecting them, multiyear recommendations, data sources, assumptions, and uncertainties.

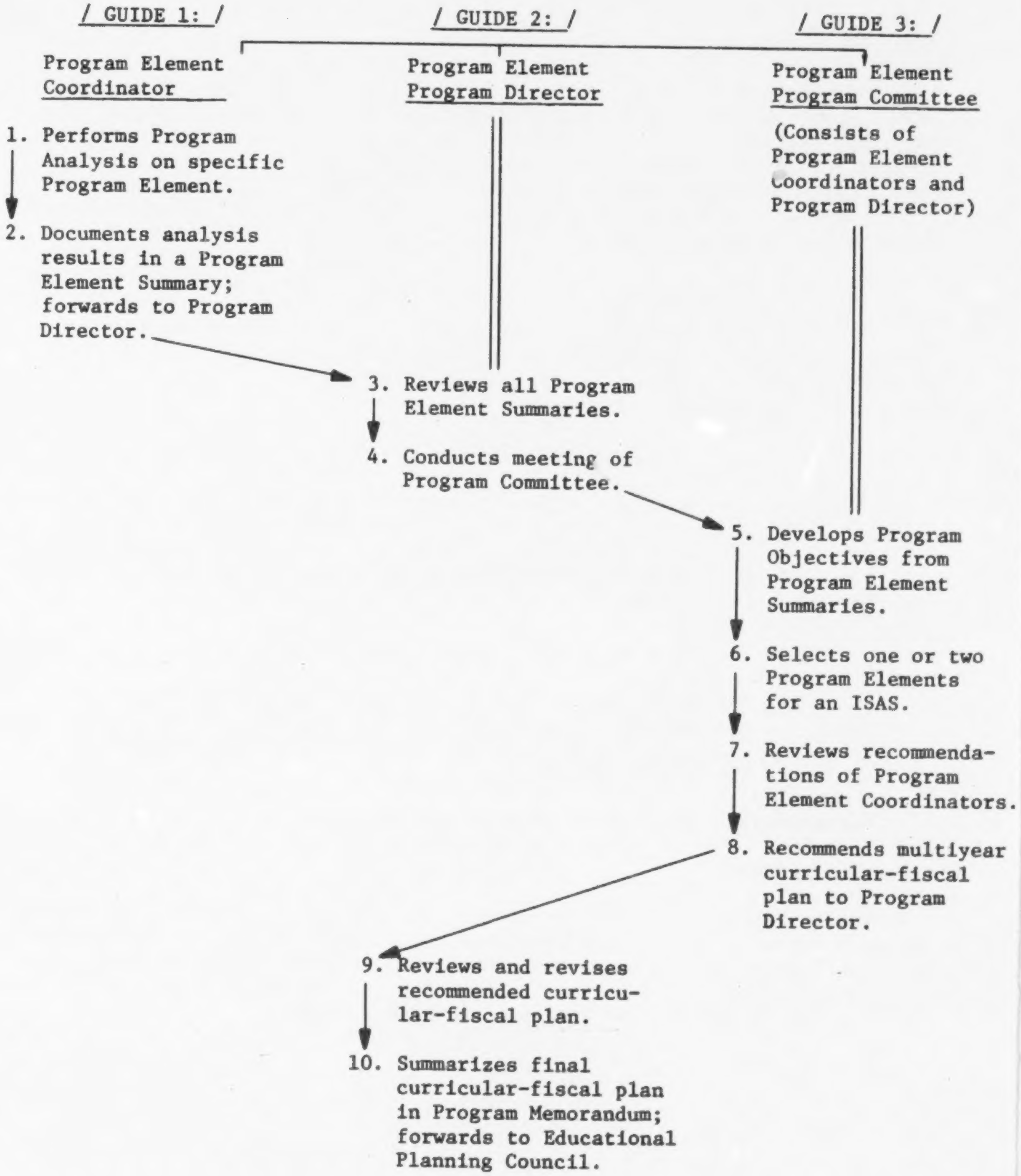
Form 21 -- Quantity and Cost of Resources Required --

> Documents translation of personnel, equipment, supplies, and miscellaneous required by the Program Element experiences in dollar cost over the multiyear time frame of the Program Element.

Consequently, Guide #1 is actually a combination of a *Form 20 guide* and *Form 21 guide.* Each is clearly identified in the upper right-hand corner of the guide's pages.

The completed Form 20-21 curricular-fiscal plan for the Program Element serve as input to the Program Committee and Program Director in developing a *summary Program curricular-fiscal plan.* The schematic on the following page depicts the roles and tasks in the work flow and the function of each of the three guides in the Program Analysis guidance package.

PROCEDURE 25-26 WORK FLOW: PREPARING A CURRICULAR-FISCAL PLAN FOR EACH PROGRAM



/ GUIDE 1: /

Program Element Coordinator

1. Performs Program Analysis on specific Program Element.
2. Documents analysis results in a Program Element Summary; forwards to Program Director.

/ GUIDE 2: /

Program Element Program Director

3. Reviews all Program Element Summaries.
4. Conducts meeting of Program Committee.

/ GUIDE 3: /

Program Element Program Committee

(Consists of Program Element Coordinators and Program Director)

5. Develops Program Objectives from Program Element Summaries.
6. Selects one or two Program Elements for an ISAS.
7. Reviews recommendations of Program Element Coordinators.
8. Recommends multiyear curricular-fiscal plan to Program Director.

Program Element Program Director

9. Reviews and revises recommended curricular-fiscal plan.
10. Summarizes final curricular-fiscal plan in Program Memorandum; forwards to Educational Planning Council.

FORM 20 GUIDE

DEVELOPING THE PROGRAM ELEMENT SUMMARY

This Form 20 Guide makes the following assumptions:

1. The district has developed and adopted a Program structure according to Procedure 24.
2. The Program Element under study is in at least its first year of implementation.
3. Program Element objectives and measures exist, having been developed according to Procedure 28.

In other words, concern here is with developing a curricular-fiscal plan for a Program Element *already in operation*, and for which *objectives have already been described.*

Form 20 consists of five "recorder worksheets" which serve to document the following data required in developing a *Program Element Summary.*

Worksheet:	Data Recorded:
1	*Objectives and Measures* A. Multiyear Objectives B. Measures of Effectiveness
2	*Experiences and Achievement* A. Objective Number B. Experiences C. Progress Toward Achievement
3	*Alternative Experiences and Selection Rationale* A. Objective Number B. Alternative Experience Considered C. Reason Not Chosen for Implementation
4	*Multiyear Recommendations*
5	*Data Source/Assumptions/Uncertainties* A. Data Sources B. Assumptions C. Uncertainties

Form 20 is used in developing both the Program Element Summary, as indicated in this guide, and in developing the Program Memorandum, as indicated in a later guide for the Program Director. Provisions are made in the upper right-hand corner of each of the Form 20 worksheets for identification of usage: *Summary* or *Memorandum.*

NOTE: To respond to the great range of individual differences in Program Elements, the five worksheets have been designed as discrete units. *As many of each worksheet as is necessary* may be included in the completed Form 20.

WORKSHEET 1: OBJECTIVES AND MEASURES

Section A. Multiyear Objectives

- Obtain the description of Program Element objectives generated by the Program Element actors prior to the current school year. (Procedure 28)
- List the specific Program Element objectives for the *Current Year, Budget Year,* and *each remaining year* of the Program Element time frame (3-5 years).

EXAMPLE:

A. Multiyear Objectives

7th Grade Language Arts Program Element

Students enrolled in regular Language Arts classes will improve in their mastery of basic reading skills of word attack and comprehension.

At the end of the current year, 60% of the students will score at or above the 60th percentile on the school-administered standardized reading test.

At the end of the budget year, 68% of the students will score at or above the 68th percentile on the school-administered standardized reading test.

WORKSHEET 1: (Continued)

Section B. Measures

- Obtain the description of the methods of measurement of effectiveness of the Program Element in achieving its objectives which was generated by the Program Element actors (Procedure 28).
- For each Program Element objective, list the measure of effectiveness used to determine its achievement.

Sample effectiveness measures:

- State Education Department normative tests
- District/School-administered standardized tests
- Teacher-constructed mastery tests
- Interim performance observation
- Percentage increase over baseline of performance specified in objective

EXAMPLES:

B. Measures of Effectiveness

Current Year

Metropolitan Reading Achievement Test - Intermediate Form.

Budget Year

As above, plus scores from the NYS normative reading achievement test administered in May.

Year One

Combination of Current and Budget Year measures indicated above.

WORKSHEET 2: EXPERIENCE AND ACHIEVEMENT

Section A. Objective

Serves to identify objectives described in 1A.

Section B. Experiences

Program Element Experiences are those activities and events designed to assist achievement of an objective by a student. At this point in constructing the Program Element Summary, the Program Element Coordinator is required to describe the *experiences* that were and are to be implemented to provide for achievement of each Program Element Objective.

Characteristics and examples of Program Element Experiences:

- Type - Instruction, guidance, policy, etc.
- Media - A-V, self-instruction, lecture, etc.
- Content - Skills, knowledges, concepts, level of difficulty, etc.
- Environment - Classroom, field trip, independent study, learning center, etc.
- Sequence - General to specific, chronological, easy to hard, contingency managed, etc.

EXAMPLE:

A. Objective #	B. Experiences:
1 - 4	- Five 50-minute periods of reading instruction per week were provided, in self-contained classrooms. Teacher/student ratio was reduced from 1/25 to 1/20, and each teacher was provided a daily preparation period plus the assistance of a half-time aide. - Each classroom was equipped with a library of 100 high-interest books (grade 4-grade 9 reading level) plus an eight-outlet tape listening station, phonograph, and film strip projector. - Adventures, Books 1 and 2 were adopted as the basal reader with the accompanying workbooks.

WORKSHEET 2: EXPERIENCES AND ACHIEVEMENT (Continued)

Section C. Progress Toward Achievement

Here the Program Element Coordinator states the results of the *measures of effectiveness* described for each objective in 1B. The emphasis is on *quantifying* the progress to date toward achievement of each objective by specifying the present measured level of achievement as compared to the initial measured level of achievement. That is, *where we are now* as a result of Program Element experiences compared to *where we started* when the Program Element was initially implemented.

EXAMPLE:

C. Progress Toward Achievement

Current Year

Measure: Gates Basic Reading Test - Grade 6

- *Median entry score - 47%*
  (Sept. 1971)
- *Median exit score - 53%*
  (May 1972)
- *Actual progress - 6%*

Measure: Teacher-Constructed Oral Reading Survey

- *Median entry level - 5.1 grade level*
- *Median exit level - 6.1 grade level*
- *Actual progress - 1 grade level*

Measure: Metropolitan Reading Achievement Test - Intermediate Form

- *Median entry level - 4.2 grade level*
- *Median exit level - 5.1 grade level*
- *Actual progress - 1/2 grade level*

WORKSHEET 3: ALTERNATIVE EXPERIENCES AND SELECTION RATIONALE

Section A. Objective #

Serves to identify Program Element objective from the list described in 1A.

Section B. Alternative Experiences Considered

Describing the alternatives considered for implementation as Program Element experiences serves to document the decision making that resulted in the implemented Program Element design.

EXAMPLES:

A. Objective #	B. Alternative Experience Considered:	
1 - 4	*- An alternative to the implemented experiences consisted of providing reading instruction in two double periods (100 minutes) and a single period (50 minutes), on Monday, Wednesday, and Friday of each week.* *- Teacher/student ratio would have been increased from 1/25 to 1/27. The major presentation activity would have been an individualized self-instructional reading program in classroom kit form.* *- The teacher would have functioned as a reading consultant, supplementing the self-instructional reading program with individual aid and assignments.*	

WORKSHEET 3: ALTERNATIVE EXPERIENCES AND SELECTION RATIONALE

Section C. Reasons Not Chosen for Implementation

Here the Program Element Coordinator completes documentation of the decision making that went into the implemented Program Element design by listing the reasons *why* the alternative experiences *were not selected* for implementation.

Samples:

> "This alternative had a total cost 33% greater than the implemented Program Element experience over the 5-year projected operation."
>
> "This alternative required special competencies in design of instructional materials by the classroom teacher and would, therefore, require a massive staff training effort."
>
> "Historical data show that the presentation vehicle specified by the alternative (large group lecture with follow-up small group lab) is not effective with the population."

EXAMPLE:

C. Reason Not Chosen for Implementation:
This alternative was not selected for the following reasons: 1. *Scheduling difficulties resulting from the double periods.* 2. *Historical data indicating that double periods exceed the attention span of this student population.* 3. *Failure to identify a self-instructional reading program that was sufficiently self-implementing to allow the teacher to function in the role described.*

WORKSHEET 4: MULTIYEAR RECOMMENDATIONS

Up to this point in constructing the Form 20 Program Element Summary, the Program Element Coordinator has obtained and documented the following data:

- Multiyear objectives
- Measures of effectiveness
- Experiences
- Progress toward achievement
- Alternative experiences considered
- Reasons they were not chosen for implementation

The remainder of the Form 20 is concerned with the Program Element Coordinators' recommendations for increasing the effectiveness of the Program Element, and the data sources, assumptions, and uncertainties upon which the recommendations are based.

Worksheet 4 is constructed by the Program Element Coordinator, responding to the data collected and documented in prior sections of the Form 20, as he describes desired changes in the following Program Element areas:

1. Multiyear objectives - Changes can be recommended in any or all of the Program Element's multiyear objectives.
2. Expected results - Changes can be recommended in the multiyear levels of achievement expected in terms of the Program Element objectives.
3. Methods of measure - Changes can be recommended in the measures of effectiveness prescribed for any or all of the Program Element objectives.
4. Experiences - Changes can be recommended in any or all of the experiences designed to cause achievement of the Program Element objectives.

Obviously, the recommendations described in Worksheet 4 focus upon *deficiencies* in the present multiyear design of the Program Element, *based on data collected earlier in the Form 20.*

EXAMPLE:

FORM 20

4. MULTIYEAR RECOMMENDATIONS:

X Summary
___ Memorandum

1. Reading objectives for Budget Year and Year 1 are concerned solely with skills of word attack and comprehension.
2. Year 2 objectives add concern with reading speed skills.
3. Year 3 objectives add concern with building vocabulary.
4. Final Year 5 results that are expected should be raised to from 80% scoring at or above the 80th percentile to 85% - 85th percentile.
5. Methods of measurement be identified and specified for each discrete reading skill presented over the time frame of the Program Element.
6. All alternative experiences described in this Program Element Summary be reconsidered for implementation each year beginning at the end of Year 1.

WORKSHEET 5: DATA SOURCE/ASSUMPTIONS/UNCERTAINTIES

Section A. Data Sources

It is important that the Program Element Coordinator list the sources of data upon which his *recommendations* (Worksheet 4) are based.

Sample data and sources:

- Current achievement level - From methods of measurement described in Worksheet 1A.
- Progress toward achievement - From comparison made in Worksheet 2C.
- District demographic data - From NYS Statistical Yearbook, U.S. Census, city and town clerks.
- Current staff competency - From district and school personnel files, in-service records, teacher survey.
- District philosophy - From district goals, purposes, and objectives in the Program Element area.
- State mandates - From state regulations regarding instruction in the Program Element area.

EXAMPLE:

A. Data Sources	
Multiyear recommendations are based on: 1. *Current achievement level as measured by the Developmental Reading Tests - intermediate level (Sept. 1971).* 2. *Progress toward achievement of 4% for the current year, as opposed to the 7% desired.* 3. *U. S. Census data for the county, which indicates 17% of the residents speak English as a second language.*	

WORKSHEET 5: DATA SOURCE/ASSUMPTIONS/UNCERTAINTIES (Continued)

Section B. Assumptions

Here the Program Element Coordinator specifies any assumptions upon which his multiyear recommendations (Worksheet 4) are based.

Sample assumptions include:

"Assumes x% rate of inflation."

"Assumes students' learning rate will not change drastically over the 3-5 year projection."

"Assumes staff turnover (professional) will not increase markedly over the 3-5 year projection."

Section C. Uncertainties

Any areas of doubt which served as basis for the multiyear recommendations should be identified by the Program Element Coordinator in Worksheet 5.

Sample uncertainties include:

"The continuance of the current level of funding by the state is unresolved at this time."

"The expertise of incoming professional staff in regard to the special competencies required by the Program Element is unknown."

"While there is evidence to support a continuation of pupil population growth, the year-to-year increase cannot be considered as completely accurate."

WHERE AM I NOW?

Recall that we said that the Program Element curricular-fiscal plan consisted of two forms -- Form 20, Program Element Summary, and Form 21, Quantity and Cost of Resources. At this point in Program Analysis Guide #1, the Program Element Coordinator has completed the Program Element Summary (Form 20) and is ready to begin construction of Quantity and Cost of Resources (Form 21).

An item-by-item guide for constructing Form 21 begins on the following page.

FORM 21 GUIDE

DETERMINING QUANTITY AND COST OF PROGRAM ELEMENT RESOURCES

Form 21 is perhaps best described as a "translator worksheet." That is, after the Program Element Coordinator has completed the Program Element Summary, he then constructs a Form 21 to convert the *resources required* by the multiyear Program Element design into actual dollar costs for each year of the projected time frame. The process of translation from resource to resource cost is quite basic:

Resource Quantity	x	Resource Item Cost	=	Total Resource Cost
4 desks	x	*$27.50 per desk*	=	*$110.00 total*

Form 21 establishes four categories of resource costs:

- Personnel - administrators, teachers, clerical, etc.
- Equipment - desks, chairs, projectors, TV sets, etc.
- Supplies - books, paper, pencils, folders, etc.
- Other - transportation, construction, admissions, fees, miscellaneous

The four categories are costed out, using the simple translation process above, for the *Current Year, Budget Year,* and *each year remaining* of the established time frame of the Program Element.

Prior to constructing Form 21 ... the Program Element Coordinator must accomplish the following tasks:

1. Complete a Form 20 Program Element Summary.
2. Verify the time frame of the Program Element (e.g., 3 years, 4 years, 5 years).
3. Obtain *standard price lists* for school equipment and supplies from the School Business Administrator.
4. Obtain supplies and equipment catalogs from district Business Office.
5. Obtain current year staff salary schedules and salary increase schedules from district Personnel Office.

The following pages of this guide present examples and sample translations of resources to costs in each of the four Form 21 categories.

PERSONNEL CATEGORY

The Program Element Coordinator reviews the Program Element Summary (Form 20) to determine the quantity of resources required in the *Personnel* category. He must describe the quantity required for the current year and then through each year of the projected time frame of the Program Element.

EXAMPLE:

Suppose that analysis of the Program Element Summary indicated these personnel needs.

Personnel	Annual Salary
1 Administrator	$11,000
3 Teachers	8,200
3 Aides	4,200
1 Consultant	1,500/month

- The consultant is needed only for *two months* in the *Current Year.*
- The administrator and teachers are scheduled for *8% salary* increases per year.
- The aides are scheduled for *3% salary* increases beginning in Year 2.

Personnel costs on a Form 21 would like like this:

Resource Category	Number of Item								
	Current		Budget		Year 1		Year 2		
	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Qu ti
PERSONNEL									
Administrators	1	$11,000	1	$11,800	1	$12,830	1	$13,858	
Teachers	3	24,600	3	26,568	3	28,793	3	31,096	
Teacher Aides	3	12,600	3	12,600	3	12,600	3	12,798	
Consultant	1	3,000	-	--	-	--	-	--	
Maintenance	-	--	-	--	-	--	-	--	
Clerical	-	--	-	--	-	--	-	--	
Total Cost of PERSONNEL		$51,200		$51,048		$54,223		$57,752	

NOTE: Salary increases included in costs.

EQUIPMENT CATEGORY

Next in constructing the Form 21, the Program Element Coordinator reviews the Program Element Summary (Form 20) to determine the quantity of resources required in the *Equipment* category. He must first describe the quantity required for the current year, and then through each year of the projected time frame of the Program Element.

EXAMPLE:

Suppose that analysis of the Program Element Summary indicated these equipment needs:

Item	Cost per Unit
15 study carrels	$75.00
17 cassette playback units	20.00
6 slide projectors	69.00
7 desks (60" x 24")	17.00
70 chairs	5.00

- Annual maintenance on cassette playback units is $3.50 per unit.
- Annual maintenance on slide projectors is $4.50 beginning in Year 1.

Equipment costs on a Form 21 would look like this:

Resource Category	Number of Items								
	Current		Budget		Year 1		Year 2		
	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Qu ti
EQUIPMENT									
Desks	7	$ 119	-						
Chairs	70	350	-						
Projectors, Slide	6	414	-		M	$27.00	M	$27.00	
Tape Recorders	17	340	M	$59.50	M	59.50	M	59.50	
TV Sets	-								
Other: *Study Carrels*	15	1,125							
Total Cost of EQUIPMENT		$2,348		$59.50		$86.50		$86.50	

NOTE: M = Maintenance

SUPPLIES CATEGORY

Just as with the preceding resource categories, the Program Element Coordinator must determine the quantity and kind of supplies required by the multiyear Program Element.

EXAMPLE:

Suppose that analysis of the Program Element Summary indicated these supply needs:

Item		Cost per Unit
150	basal texts	$2.25
5	reference book sets	55.00
1500	consumable programmed instruction workbooks	0.85
500	report folders	0.06
15	reams 8½ x 11 paper	1.25

- Replacement of basal texts is estimated at 20% per year.
- Programmed workbooks, report folders, and paper are consumable, and needed each year.

Supply costs on a Form 21 would look like this:

Resource Category	Number of Items							
	Current		Budget		Year 1		Year 2	
	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
SUPPLIES								
Books	*1655*	*$1,947*	*1530*	*$1,402*	*1530*	*$1,402*	*1530*	*$1,402*
Paper	*15*	*$ 18.75*	*15*	*$ 18.75*	*15*	*$ 18.75*	*15*	*$ 18.75*
Other: *Report Folders*	*500*	*30.00*	*500*	*30.00*	*500*	*30.00*	*500*	*30.00*
Total Cost of SUPPLIES		*$1,995.75*		*$1,450.75*		*$1,450.75*		*$1,450.75*

NOTE: *Books* Current Year includes 150 basals, 5 reference sets, and 1500 programmed workbooks. Budget year on includes only replacement basals and programmed workbooks.

"OTHER" CATEGORY

The remaining resource category on the Form 21 is labeled *Other*. It is intended as a catchall for costing out resources which do not fall into the preceding three categories. Such resources might include:

- Field-trip transportation
- Field-trip admission fees
- Food and lodging
- Classroom construction or renovation
- Special training costs.

> Note: If there is *no change* in use of existing classroom space, *no cost* is indicated on Form 21. If construction or renovation of classrooms is required, a cost is indicated on Form 21

The process remains the same. The Program Director must identify what resources belonging to the *Other* category are required in the current year, and for each year of the projected time frame of the Program Element.

COMPLETING FORM 21

When all resources have been described as quantities in the various Form 21 categories, and their cost has been projected over the time frame of the Program Element, the costs for all categories per year are totaled and entered in the *Total Cost of Resources* space. This completes the Form 21.

POINTS TO REMEMBER

- Accuracy of the projected costs is contingent upon the correctness of the resource quantities identified and the unit price applied in determining cost.

- Factors affecting costs beyond the current year, such as maintenance, replacement, quantity increase, must be considered in completing the Form 21.

- The School Business Administrator can assist the Program Element Coordinator in costing out resources where it is difficult to specify item cost or cost over time.

> The completed Form 21, Quantity and Cost of Resources, along with the earlier completed Form 20, Program Element Summary, comprise the Program Element curricular-fiscal plan. They are to be forwarded to the Program Director for review.

PROGRAM ANALYSIS GUIDE #2

for use by the Program Director

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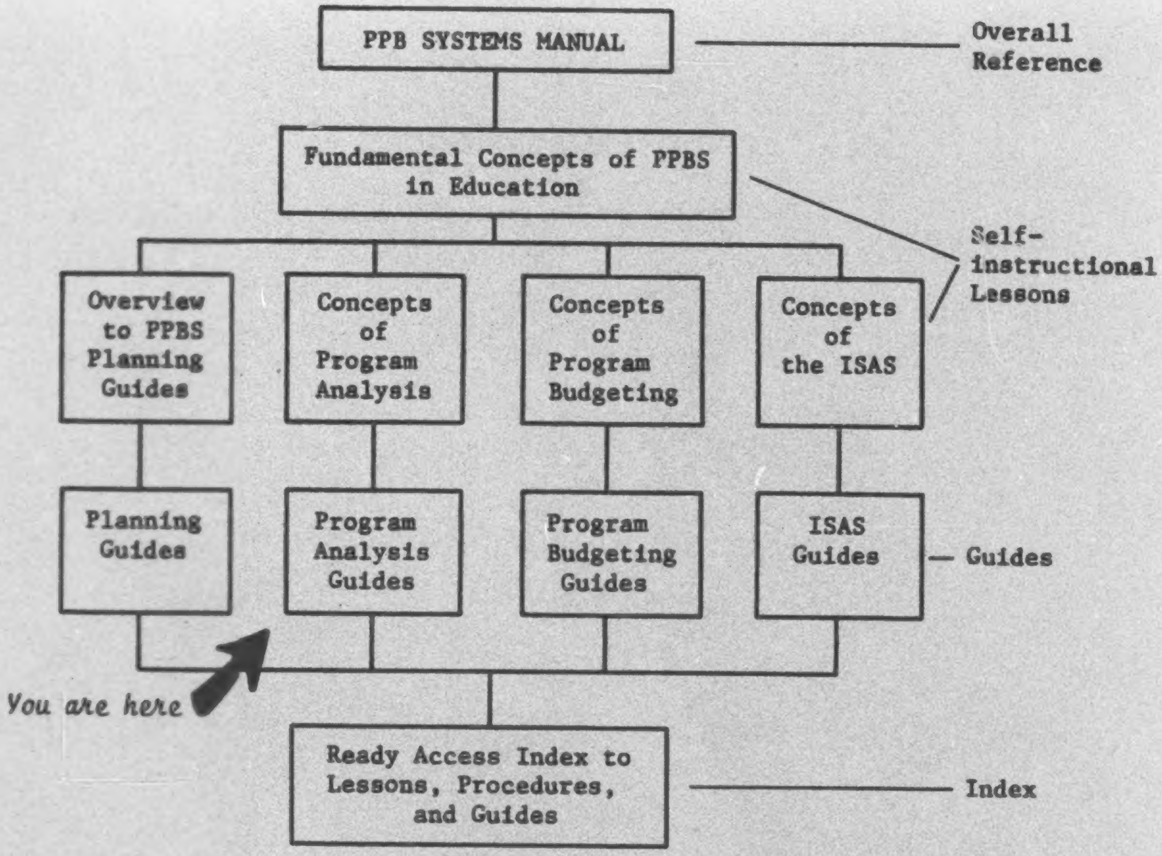
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PROGRAM ANALYSIS GUIDE #2

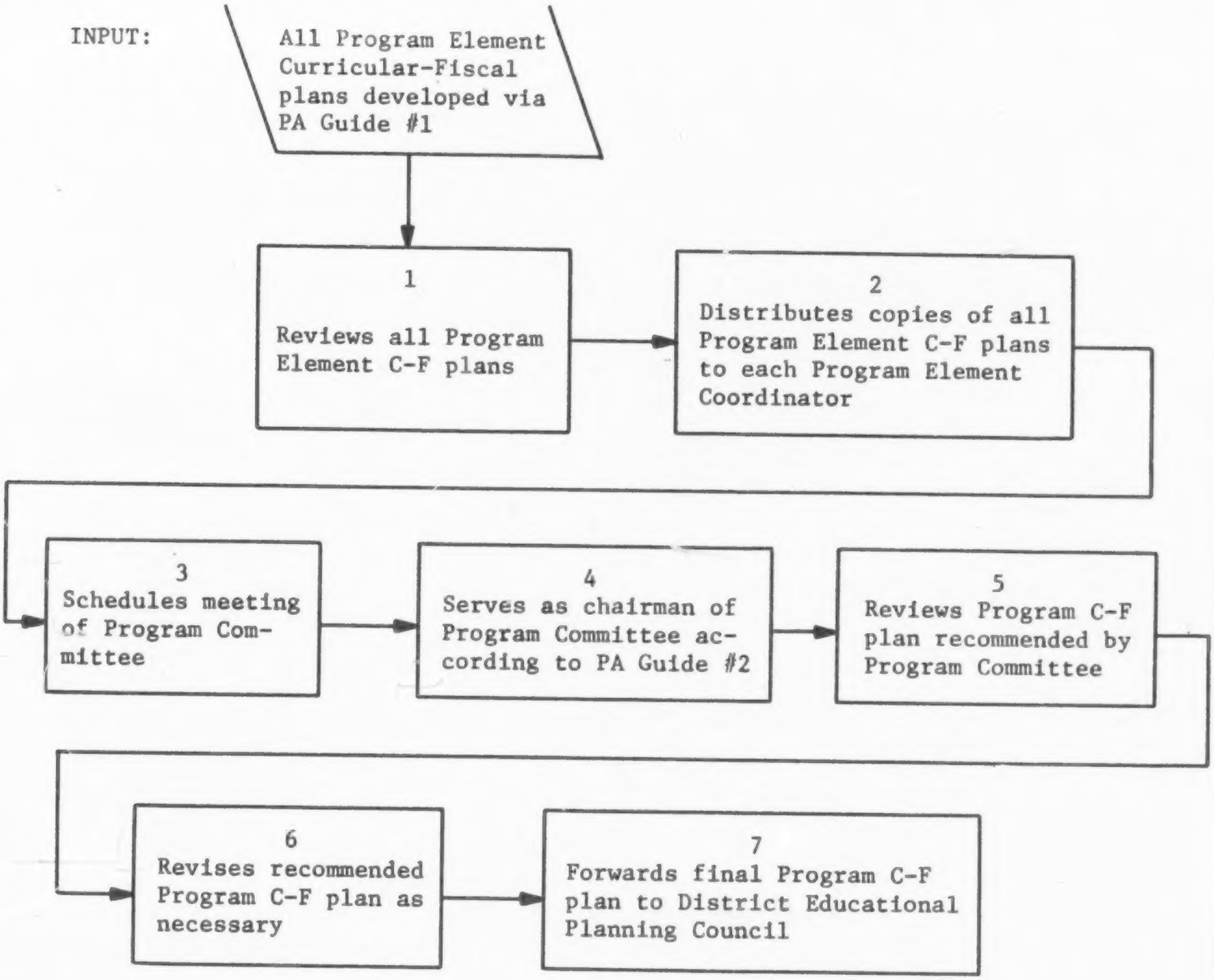
PURPOSES OF THIS GUIDE

Program Analysis Guide #2 has been designed specifically for the *Program Director* as he coordinates the development of the multiyear curricular-fiscal plan for his particular Program. (PPBS Procedures 25 and 26.) This guide specifies the tasks and products for which the Program Director is responsible as the final Program C-F plan evolves from Guides 1 and 3.

At one point in Guide #2, the Program Director *leaves* Guide 2 and refers to Guide 3, as *chairman of the Program Committee.* Upon completion of all of the tasks of the Program Committee, and generation of a tentative Program C-F plan, the Program Director refers back to Guide 2 (this guide) for the remainder of the process of finalizing the Program C-F plan.

In actuality, the Program Director will find it necessary to work in all three of the Program Analysis Guides in the process of developing a Program C-F plan, and should use them as reference whenever necessary. It is Guide 2, however, which details the actual tasks and products for which the Program Director is directly responsible.

ROLE OF THE PROGRAM DIRECTOR IN PREPARING A PROGRAM CURRICULAR-FISCAL PLAN


INPUT:
All Program Element Curricular-Fiscal plans developed via PA Guide #1
1
Reviews all Program Element C-F plans
2
Distributes copies of all Program Element C-F plans to each Program Element Coordinator
3
Schedules meeting of Program Committee
4
Serves as chairman of Program Committee according to PA Guide #2
5
Reviews Program C-F plan recommended by Program Committee
6
Revises recommended Program C-F plan as necessary
7
Forwards final Program C-F plan to District Educational Planning Council

REVIEWING ALL PROGRAM ELEMENT C-F PLANS - Flow Chart Step 1

As input to performing his tasks in preparing the Program curricular-fiscal plan, the Program Director will receive copies of the various *Program Element* curricular-fiscal plans developed by the Program Element Coordinators according to the guidelines presented in Program Analysis Guide #1. He must review all Program Element C-F plans prior to the meeting of the Program Committee, which consists of the various Program Element Coordinators and himself.

This review is best accomplished if the Program Director follows the guidelines for review presented in Guide #3, as follows:

PROGRAM ELEMENT C-F PLAN REVIEW: Flow Chart Step 1

> Prior to the formal meeting of the Program Committee, which is arranged and scheduled by the Program Director (PA Guide #2), all Program Element Coordinators individually review each Program Element's curricular-fiscal plans, excluding their own. These are the C-F plans developed by the various Program Element Coordinators, consisting of a completed Form 20, *Program Element Summary*, and a Form 21, *Quantity and Cost of Resources*.
>
> The Program Director makes certain that *all* Program Element C-F plans are distributed for review to *each* of the Program Element Coordinators on the Program Committee.
>
> The checklist on the following page serves to guide and document individual review of the various C-F plans. Each Program Element Coordinator completes a checklist for each of the C-F plans that he reviews. These serve as agenda for Program Committee group review of the various C-F plans.
>
> Each Program Element C-F plan is reviewed in terms of:
>
> - Completeness
> - Specificity
> - Achievement of objectives
> - Cost
> - Feasibility*
> - Contribution to Program objectives

---

*Feasibility estimates by various members of the Program Committee may be limited due to divergent subject-matter expertise, but should nevertheless prove helpful as decision-making input.

PROGRAM ELEMENT C-F PLAN REVIEW CHECKLIST

Complete a checklist for each C-F plan forwarded to you by the Program Director for use in the Program Committee meeting.

Name ______________________________ Date ______________

Program Element Reviewed ______________________________

Check (√) the appropriate rating.

CRITERIA	RATING		
	High	Moderate	Low
• Completeness - All items on the five Form 20 worksheets and on the Form 21 completed. Projections made for entire time frame. Total costs computed for all resource categories.			
• Specificity - Objectives and progress toward achievement in measurable terms, experiences and alternatives precisely described. Recommendations in precise terms.			
• Achievement of Objectives - Progress toward objectives to date, as measured and recorded on Form 20.			
• Cost - Funds expended to date to obtain achievement of objectives rated above.			
• Feasibility - Probability of effectiveness of multiyear objectives, experiences, and costs considering achievement and cost to date.			
• Contribution to Program Objectives - Degree to which achievement and projected objectives and expected results coordinate with Program objectives.			

NOTE: The Program Director retains these individual review sheets for use in the meeting of the Program Committee.

DISTRIBUTING COPIES OF THE PROGRAM ELEMENT C-F PLANS: Flow Chart Step 2

The second task of the Program Director, in preparing a Program Curricular-Fiscal Plan, is performed prior to the meeting of the Program Committee. The Program Director must forward copies of all individual Program Element curricular-fiscal plans, consisting of the Form 20 and Form 21 completed by each Program Element Coordinator, to each Program Element Coordinator for premeeting review.

The actual review process is described in Guide #3. The concern of the Program Director is to see that each Program Element Coordinator receives a copy of each Program Element curricular-fiscal plan sufficiently prior to the meeting of the Program to allow review.

The following steps are suggested in accomplishing this task:

1. Establish a list of Program Elements and Coordinators functioning within the particular Program.
2. As the Program Element C-F plans are received, check them off on the master list (#1).
3. When all Program Element C-F plans have been received, have them copied in sufficient quantity to distribute to all Program Element Coordinators within the Program.
4. Forward to each Program Element Coordinator:
    - A copy of all Program Element C-F plans, collated by Program Element.
    - A copy of Program Analysis Guide #3, the *Program Committee* guide.
5. As the documents specified in #4 are forwarded to the individual Program Element Coordinators, check them off on the master list (#1).

This series of steps insures that each Program Element Coordinator receives copies of all of the Program Element C-F plans within the Program and guidelines for accomplishing the premeeting review of them.

SCHEDULING THE MEETING OF THE PROGRAM COMMITTEE: Flow Chart Step 3

The Program Director serves as chairman of the Program Committee. Consequently, his duties include making preparations for the initial and subsequent meetings of the Program Committee, until such time as it has accomplished its assigned tasks, resulting in a tentative multiyear Program curricular-fiscal plan.

Meeting preparation involves the following steps:

Determine space/facilities required

The meeting place must accommodate all members of the Program Committee, offer adequate work space, provide any required A-V equipment required.

Determine location

The meeting should be held in a location that allows equitable access to all members of the Program Committee.

Determine date and time

The number of Program Committee meetings required will vary from Program to Program, but it is safe to say that more than one meeting will be required, no matter what the Program. Meetings must be held on days and at times that allow all members of the Program Committee to attend. Initially, the Program Director must determine the meeting date and time by surveying the various Program Element Coordinators. Subsequently, future meetings can be scheduled as the last item of business at Program Committee meetings.

Advise all Program Committee members of place, date, and time

The Program Director should inform all Program Committee members of the date, place, and time of all meetings by means of a written memo several days prior to the meeting.

SERVING AS PROGRAM COMMITTEE CHAIRMAN: Flow Chart Step 4

At this point in the total procedures of preparing a Program curricular-fiscal plan, the Program Director has accomplished these tasks:

1. Reviewed each Program Element C-F plan and documented his review on a rating checklist.

2. Distributed copies of all Program Element C-F plans to each Program Element Coordinator, along with copies of Program Analysis Guide #3 for their use as members of the Program Committee.

3. Prepared for the initial meeting of the Program Committee by arranging for meeting space at a mutually convenient time and place for the Program Committee members.

The next task of the Program Director is to serve as chairman of the Program Committee meetings, from the initial meeting through performance of all tasks assigned to the committee in Guide #3.

At this point, the Program Director is referred to Guide #3 for his use in administering and coordinating the work of the Program Committee.

This guide, Program Analysis Guide #2, should be consulted again by the Program Director upon the accomplishment of all assigned tasks by the Program Committee, or, *when he has been provided a tentative Program curricular-fiscal plan* by the Program Committee for his review.

Refer to Guide #3 at this point.

REVIEWING AND REVISING THE RECOMMENDED PROGRAM C-F PLAN
Flow Chart Steps 5 and 6

Resume in *this guide* at this point.

At this point in the development of the Program C-F plan, the Program Director, functioning as chairman of the Program Committee, has participated in the drafting of a tentative curricular-fiscal plan for the Program being considered. He now reviews the tentative C-F plan and revises it based on the findings of his review.

The tentative Program C-F plan, which is the product of the efforts of the Program Committee, consists of two forms:

Form 20 -- Summary of component Program Elements

Form 21 -- Summary of Program resource quantities and costs.

These forms represent a *summarization* of the individual Program Element curricular-fiscal plans that the various Program Element Coordinators developed earlier in the Program Analysis procedures. (PA Guide #1) The Program Director is in an excellent position to review them because:

- He has reviewed each of the Program Element C-F plans submitted by the Program Element Coordinators.
- He has served as chairman and member of the Program Committee as it worked to summarize the component Program Element C-F plans into a tentative *Program* C-F plan.

The review performed by the Program Director at this point is a *final check* on the components of the Program C-F plan recommended by the Program Committee and on its consistency with the larger district-level goals and objectives in the Program area.

In reviewing the tentative Program C-F plan, the Program Director should consider these points:

- Completeness

  Is a completed Form 20 included in the Program C-F plan? Is a completed Form 21 included? Do the forms represent all Program Elements within the Program? Are all items on each form complete?

- Accuracy

  Are the mathematical computations involved in determining *cost of resources* on the Form 21 correct?

- Feasibility

  Are the objectives, experiences, measures of effectiveness, quantity and cost of resources recommended within the Program C-F plan realistic in terms of known constraints? Can the recommended C-F plan be implemented in the "real world" of district planning?

- Contribution to District Objectives

  Does the recommended Program C-F plan offer consistency with district goals and objectives in the Program area? Will achievement of suggested Program objectives contribute to reaching desired district goals?

The worksheet on the following page is designed to record revisions to the Program C-F plan by the Program Director, as well as document his rationale for making the revisions. *Copies of the worksheet are used to communicate his revisions to the other members of the Program Committee.*

Example:

C-F PLAN REVISION WORKSHEET PROGRAM DIRECTOR

Program *Bloomfield Senior High School*

Program Director *A. T. Liston* Date *5/23/72*

Item as stated in Program C-F plan recommended by Program Committee.	Revision to item and rationale.
"By 1975, at least 45% of the graduating seniors will receive New York State Regents diplomas."	*Change 45% to 50% of the graduating seniors, to achieve consistency with existing district objectives.*

Program Director

C-F PLAN REVISION WORKSHEET

Program ______________________________

Program Director ____________________ Date __________

Item as stated in Program C-F plan recommended by Program Committee:	Revision to item and rationale:

NOTE: TO BE DISTRIBUTED TO ALL PROGRAM COMMITTEE MEMBERS

THE FINAL PROGRAM CURRICULAR-FISCAL PLAN: Flow Chart Step 7

Once the Program Director has reviewed and noted revisions required to the tentative Program C-F plan (on the preceding revision worksheets), he is responsible for finalizing the Program C-F plan for recommendation to the *District Educational Planning Council*. This involves the following steps:

- Constructing a Form 20 *Program Memorandum* to include all revisions and the final worksheet on *Decisions and Recommendations for Further Study*.
- Constructing a Form 21, *Quantity and Cost of Resources*, to include all revisions.
- Forwarding the final Program curricular-fiscal plan, consisting of the two forms described above, to the Educational Planning Council.

The unique portion of the Program Director's tasks in finalizing the Program C-F plan into a Program Memorandum is the completion of the *sixth and last worksheet* of the Form 20.

You will recall from Guide 1 that Form 20 serves a dual purpose. The first five of six worksheets are completed by the various Program Element Coordinators and submitted as *Program Element summaries* to the Program Committee. In constructing a Program Memorandum, the *sixth and final worksheet* of Form 20, entitled *"Decisions and Recommendations for Further Study,"* is completed. It requires the Program Director to specify:

1. Major Program Issue decisions which need to be brought to the attention of the Chief School Officer and/or the Board of Education.
2. Program Elements recommended for an ISAS.

The following two pages provide specific guidance in identification and documentation of *Program Issue decisions* and *specification of Program Elements recommended for an ISAS.*

WORKSHEET 6: DECISIONS AND RECOMMENDATIONS FOR FURTHER STUDY

SECTION A. MAJOR PROGRAM ISSUE DECISIONS

This item requires the Program Director to do the following things:

- Specify all decisions made in the process of developing the Program curricular-fiscal plan that need to be brought to the attention of the Chief School Officer or Board of Education.
- State the rationale for the decisions specified as Program Issue decisions (above).

Program Issue decisions are those that might require policy changes or that have district-wide curricular-fiscal implications.

Example: Here is a sample Program Issue decision and the rationale for its resolution within the Program curricular-fiscal plan.

FORM 20

6. DECISIONS AND RECOMMENDATIONS FOR FURTHER STUDY

A. Major Program Issue Decisions:

1. *The experiences described in the Program Memorandum are based, in part, on a decision to make fuller use of the Hardy Street Learning Center facility. This decision was based on input from the Director of the Learning Center that he was to be provided additional funds in order to extend the activities and operating hours of the Center.*

WORKSHEET 6: DECISIONS AND RECOMMENDATIONS FOR FURTHER STUDY (Continued)

SECTION B: ISAS RECOMMENDATIONS

One task of the Program Committee (Guide #3) was to recommend one or two Program Elements for an Instructional Systems Analytical Study (ISAS). The Program Elements identified for the ISAS were those -

- Most deficient in meeting objectives.
- Most deficient in responding to high-priority district problems.
- Most deficient in responding to an identified community need.
- Most in need of closer study in terms of approach, activities, and experiences - or -
- Innovative needs-oriented Programs anticipated for implementation.

In this section of the worksheet, the Program Director lists the Program Elements recommended for ISAS and forwards the completed form to the Educational Planning Council for approval or disapproval.

Example:

NOTE: This section completed only if Program Memorandum is being constructed.

B. ISAS Recommendations:

1. *Foreign Language Program Element - based on data from area colleges that district graduating seniors are experiencing great difficulty with college first-year foreign language courses, especially in conversational activities.*

2. *Industrial Arts Program Element - based on data that shows this Program Element to be consistently exceeding its budget, yet serving ever fewer number of students.*

PROGRAM ANALYSIS GUIDE #3

for use by the Program Committee

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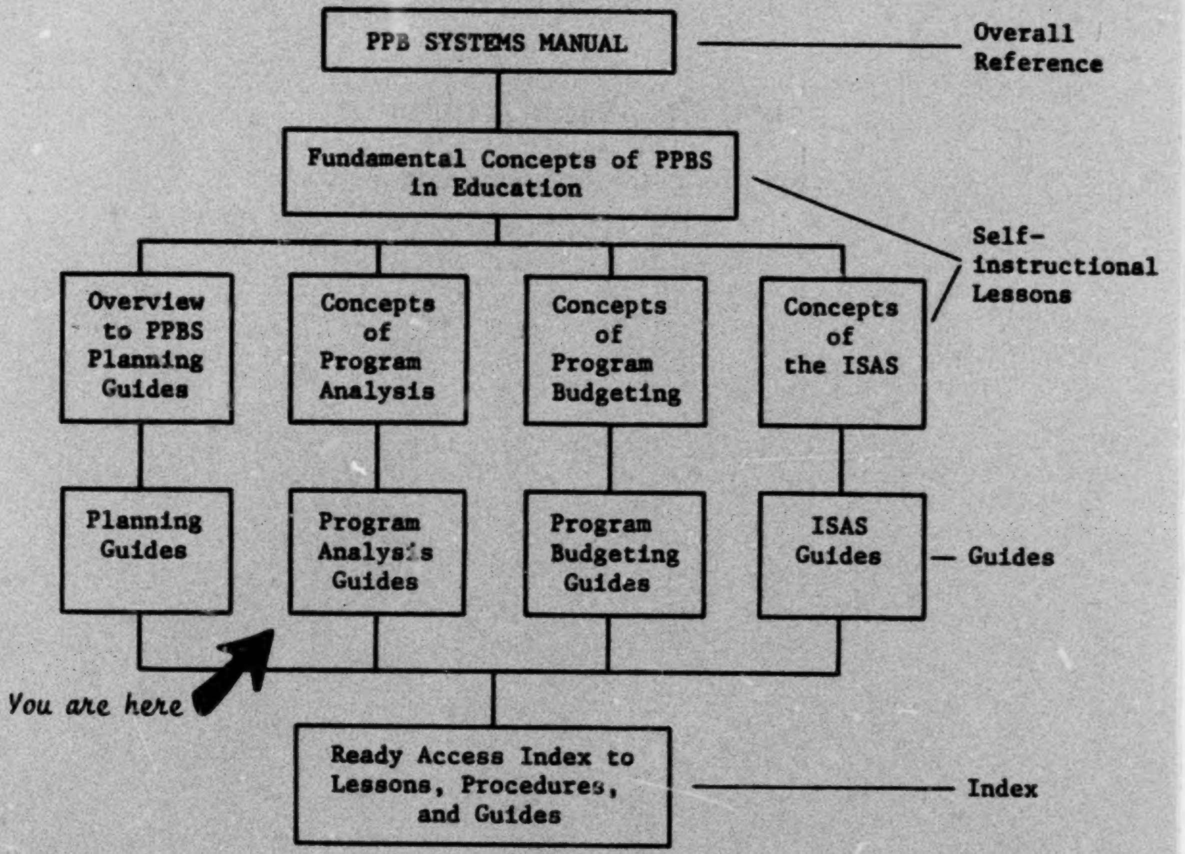
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ISAS Guides
Guides
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PROGRAM ANALYSIS GUIDE #3

PURPOSES OF THIS GUIDE

Program Analysis Guide #3 has been designed as the third of a series of three guides which combine to assist in *preparing a curricular-fiscal plan for each Program.* (PPBS Procedures 25 and 26.) The focus of Guide #3, which is used by the various Program Element Coordinators and the Program Director meeting as the *Program Committee*, is on developing a *tentative Program curricular-fiscal plan* to be recommended to the Program Director. Guide #2, in this series, assists the Program Director in finalizing the recommended C-F plan.

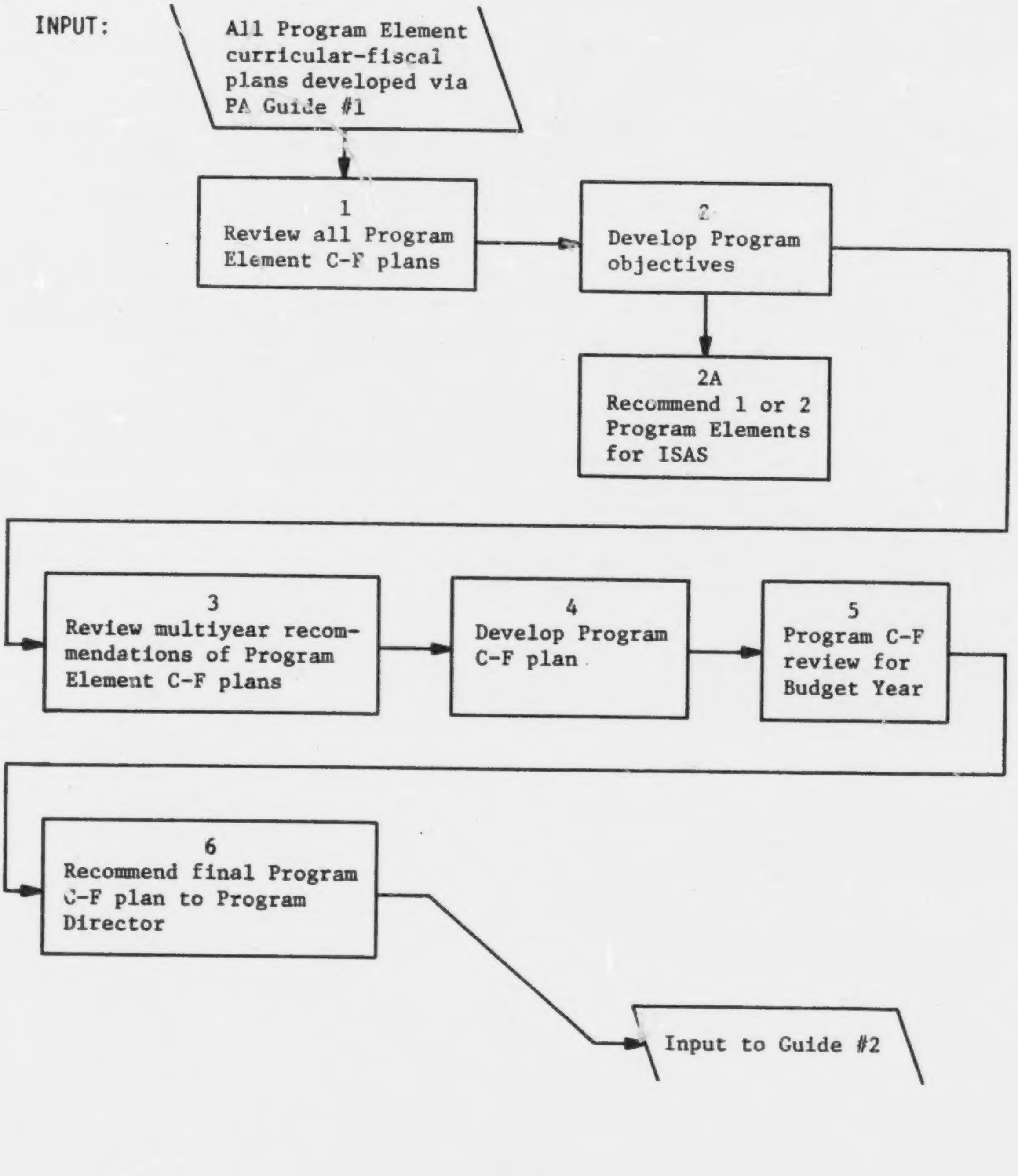
Guide #3 assumes that all users have completed a Program Element C-F plan according to Guide #1 and, therefore, is more general in content than Guide #1. Again, two forms are constructed as components of the curricular-fiscal plan, but this time *by committee at the Program level*. These are:

Form 20 -- Program Element Summary

Form 21 -- Quantity and Cost of Resources Required

These forms serve as general summaries of the design and cost of all Program Elements within the Program over a five-year projection. The schematic on the following page depicts the work flow of the Program Committee in generating a tentative multiyear Program curricular-fiscal plan.

PROGRAM COMMITTEE WORK FLOW: PREPARING A PROGRAM CURRICULAR-FISCAL PLAN


INPUT:
All Program Element curricular-fiscal plans developed via PA Guide #1
1 Review all Program Element C-F plans
2 Develop Program objectives
2A Recommend 1 or 2 Program Elements for ISAS
3 Review multiyear recommendations of Program Element C-F plans
4 Develop Program C-F plan
5 Program C-F review for Budget Year
6 Recommend final Program C-F plan to Program Director
Input to Guide #2

PROGRAM ELEMENT C-F PLAN REVIEW: Flow Chart Step 1

As prework to the formal meeting of the Program Committee, which is arranged and scheduled by the Program Director (PA Guide #2), all Program Element Coordinators individually review each Program Element's curricular-fiscal plans, excluding their own. These are the C-F plans developed by the various Program Element Coordinators, consisting of a completed Form 20, Program Element Summary, and a Form 21, Quantity and Cost of Resources.

It is the responsibility of the Program Director to make certain that all Program Element C-F plans are distributed for review to each of the Program Element Coordinators on the Program Committee.

The checklist on the following page serves to guide and document individual review of the various C-F plans. Each Program Element Coordinator completes a checklist for each of the C-F plans that he reviews. These serve as agenda for Program Committee group review of the various C-F plans.

Each Program Element C-F plan is reviewed in terms of:

- Completeness
- Specificity
- Achievement of objectives
- Cost
- Feasibility*
- Contribution to Program objectives.

**Feasibility* estimates by various members of the Program Committee may be limited due to divergent subject-matter expertise, but should nonetheless prove helpful as decision-making input.

Program Committee
Flow Chart Step 1

PROGRAM ELEMENT C-F PLAN REVIEW CHECKLIST

Complete a checklist for each C-F plan forwarded to you by the Program Director for use in the Program Committee meeting.

Name ______________________________ Date ______________

Program Element Reviewed ______________________________

Check (✓) the appropriate rating.

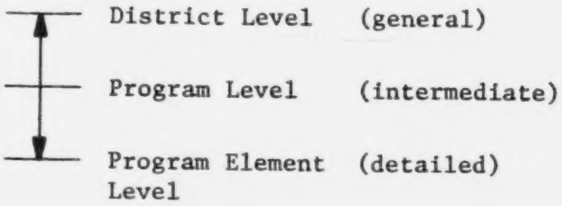
CRITERIA	RATING		
	High	Moderate	Low
Completeness - All items on the five Form 20 worksheets and on the Form 21 completed. Projections made for entire time frame. Total costs computed for all resource categories.			
Specificity - Objectives and progress toward achievement in measurable terms, experiences and alternatives precisely described. Recommendations in precise terms.			
Achievement of Objectives - Progress toward objectives to date, as measured and recorded on Form 20.			
Cost - Funds expended to date to obtain achievement of objectives rated above.			
Feasibility - Probability of effectiveness of multiyear objectives, experiences, and costs considering achievement and cost to date.			
Contribution to Program Objectives - Degree to which achievement and projected objectives and expected results coordinate with Program objectives.			

DEVELOPING PROGRAM OBJECTIVES: Flow Chart Step 2

Developing Program Objectives requires that the Program Committee has done these things:

1. Reviewed each Program Element curricular-fiscal plan individually, and documented the results of the review on the preceding *review checklist.*
2. Obtained district statements of goals and objectives in the Program area.

Recall the basic Program hierarchy:


District Level (general)
Program Level (intermediate)
Program Element Level (detailed)

The Program objectives to be developed by the Program Committee *are a synthesis of district-level and Program Element-level objectives.*

Program objectives have these characteristics:

- They specify population, performance, conditions, criteria, and limits.
- They are written to a greater level of detail than district goals and objectives.
- They are written to a lesser level of detail than Program Element objectives.
- They represent all Program Element objectives that comprise the Program.
- They serve to link district-level objectives with Program Element objectives.

The task of the Program Committee is then to review district input in the form of goals and objectives, review the Program Element multiyear objectives, and develop specific multiyear *Program objectives.*

DEVELOPING PROGRAM OBJECTIVES (Continued)

EXAMPLE:

If the *district objective* is:

> "District students will develop skills and attitudes required to enable them to continue learning on their own initiative after graduating, as indicated by:
>
> 1. The number of students enrolled in elective courses.
> 2. The percentage of district graduates enrolled in the district's continuing education program.
> 3. The library media circulation rate."

And if a related *Program Element objective* is:

> "By the end of Year 2, 75% of the 11th Grade Language Arts students enrolled in regular classes will be able to locate reference books and periodicals in the school library through use of standard reference bibliographies within two 50-minute periods."

Then, an intermediate *Program objective* linking the two might be:

> "By 1973, graduating seniors will possess sufficient library locational skills to be able to gather data from various references on topics of personal and vocational interest. Achievement of this objective will be measured by performance monitoring of the research performed in conjunction with the senior term paper."

Note that the resulting Program objective meets the criteria stated on the previous page:

- It specifies population, performance, conditions, criteria, and limits.
- It is in more detail than the district objective.
- It is in less detail than the Program Element objective.
- It represents the Program Element objective.
- It serves to link the district and Program Element objective.

DEVELOPING PROGRAM OBJECTIVES (Continued)

MODEL:

The following model for generating Program Objectives is suggested, along with the *Program Objective Worksheet* on the following page. The model and worksheet serve to provide structure to the efforts of the various members of the Program Committee, which assures consistency in the final statement of Program objectives.

- For each year of the Program time frame:

  1. List all *district goals and objectives* related to the Program.
  2. For each district goal or objective, list all *Program Element objectives* related to it for that year of the time frame.
  3. Analyze each to determine:
     - Target population
     - Desired performance
     - Conditions of performance
     - Criteria
     - Performance limits
  4. Draft a *Program objective* which:
     - Summarizes the component Program Element objectives.
     - Is consistent with the district goal or objective.
     - Specifies population, performance, conditions, criteria, and limits in measurable terms of intermediate specificity. (Neither as general as the district objective nor as detailed as the Program Element objective.)

- Perform 1-4 for each year of the Program time frame.
- Review and revise the stated Program objectives.

The *Program Objective Worksheet* on the following page is simply a format for collection and analysis of district and Program Element objectives.

PROGRAM OBJECTIVE WORKSHEET

Program Committee

Program ______________________ Year: Current____ Budget____ Y1____ Y2____ Y3____ Y4____ Y5____

1. District Goal/Objective} ——→	PROGRAM OBJECTIVE	←—— {2. Related Program Element Objective

DEVELOPING PROGRAM OBJECTIVES (Continued)

Check the Program objectives generated against the following points.

GENERAL:

- Have you written Program objectives for each year of the Program time frame?
- Have you written Program Element objectives for each area of performance represented by district and/or Program Element objectives?

SPECIFIC:

- Is each objective consistent with district goals and objectives?
- Does each group of objectives summarize *Program Element* to which it relates?
- Does each objective (or group of objectives) specify the *target population?*
- Does each objective describe the *desired criterion performance* in measurable terms?
- Does each objective specify the *givens and conditions of performance?*
- Does each objective state required *performance criteria?*
- Does each objective specify any existing *performance limits* on behalf of the target population?

REWORK YOUR STATEMENT OF PROGRAM OBJECTIVES UNTIL IT MEETS THE CRITERIA OUTLINED IN THE CHECKLIST.

WHERE AM I NOW?

At this point, you have worked through the *first two steps* in the Program Committee work flow. All Program Element C-F plans have been reviewed, and the critical task of *generating Program objectives* has been accomplished.

Before moving on to tasks directly related to developing the Program C-F plan, the Program Committee is required to recommend one or two Program Elements for further study, via an ISAS (Instructional Systems Analytical Study). This is specified in the work-flow schematic as Step 2A.

The following page in the guide is concerned with determining *which* Program Elements to recommend for an ISAS. Subsequent pages resume with work-flow steps 3 through 6, which focus directly on developing the tentative Program C-F plan.

RECOMMEND PROGRAM ELEMENTS FOR ISAS: Flow Chart Step 2A

After individual review of the Program Element C-F plans (Flow Chart Step 1) and Program Committee development of Program objectives (Flow Chart Step 2), the Program Committee is charged with identifying one or two Program Elements for an *Instructional Systems Analytical Study (ISAS).*

This recommendation is based on the following points:

1. Which Program Elements are *most deficient* in meeting objectives?

2. Which Program Elements are *most deficient* in responding to high-priority district objective or community need?

3. Which Program Elements are *most in need* of closer study in terms of approach, activities, and experiences

   - or

4. Which Program Elements represent new, innovative Program Elements anticipated to deal with an identified priority need (e.g., drug education, race relations, driver safety, civil defense, etc.)?

Identification of the one or two Programs Elements within the Program that are most in need of an ISAS is best accomplished by a committee tabulation of the individual *Program Element Review Checklists* completed by each Program Element Coordinator prior to convening as a Program Committee (Flow Chart Step 1).

Example:

> Assume there are eight members of the Program Committee. The best rating any Program Element could receive would then be eight checkmarks in the "high" column for each criteria measure specified in the Review Checklist. The *lowest* rating would be eight checkmarks in the "low" column for each criteria measure. By tabulating the Program Committee's individual ratings and examining the totals, the Committee can readily identify the one or two Program Elements ranking lowest in the most criteria measures. These are recommended for an ISAS.

Program Elements found to be most in need of an Instructional Systems Analytical Study are recommended by title to the Program Director.

REVIEW OF MULTIYEAR RECOMMENDATIONS: Flow Chart Step 3

Prior to developing the *Program curricular-fiscal plan,* it is the responsibility of the Program Committee to review the multiyear recommendations of each Program Element Coordinator. These are contained in the *Program Element Summary* -- Form 20, Section 4.

In this section of the Form 20, each Program Element Coordinator makes recommendations concerning his Program Element in any or all of the following areas:

- Multiyear objectives
- Expected results
- Methods of measure
- Experiences

In reviewing the multiyear recommendations:

1. Recommendations for each Program Element are considered, one at a time, by the Program Committee.
2. The Program Element Coordinator for the Program Element being considered *presents* and *explains* the recommendations to the Committee.
3. The Committee acts upon each recommendation, either:
    - Accepting it as input for the Program C-F plan.
    - Accepting it as amended by the Committee.
    - Rejecting it.
4. The *Program Director*, as chairman of the Program Committee, is responsible for inclusion of all revisions accepted or amended by the Committee in the final Program C-F plan.

DEVELOPING THE MULTIYEAR PROGRAM C-F PLAN: Flow Chart Step 4

In simplest terms, the multiyear Program curricular-fiscal plan is *the sum of the C-F plans as affected by the recommendations accepted as input by the Program Committee.* Like Program objectives, the Program C-F plan differs from the various Program Element C-F plans in that it is a summarization of them, written in more general terms than the individual plans.

The multiyear Program curricular-fiscal plan consists of a *summary Form 20 and Form 21,* with these components:

- Form 20 - Program Level - Program Element Summary

1A.	Multiyear Objectives	Program objectives developed in Flow Chart Step 3.
1B.	Measures of Effectiveness	General categories of *measures* specified in the various Program Element Summaries (Form 20).
2B.	Experiences	Summary of *experiences* designed to achieve objectives, as specified in the Program Element Summaries.
2C.	Progress Toward Achievement	General quantification of *progress to date;* summary of progress reported in individual Program Element Summaries.
3B.	Alternative Experiences	General description of kinds of *alternatives* considered in each Program Element Summary.
3C.	Reasons Not Chosen	General *rationale* for not selecting various alternatives.
4.	Multiyear Recommendations	*Specific recommendations* accepted or amended and accepted by the Program Committee.
5A.	Data Sources	General categories of *data sources* upon which THE MULTIYEAR RECOMMENDATIONS are based.
5B.	Assumptions	Summary of *assumed trends* as specified in the Program Element Summaries.
5C.	Uncertainties	Summary of *specific uncertainties* described in the Program Element Summaries.

- Form 21 - Quantity and Cost of Resources Summary

Reflects total multiyear cost of *all Program Elements* in the categories of personnel, equipment, supplies, and other.

DEVELOPING THE MULTIYEAR PROGRAM C-F PLAN (Continued)

The tasks of the Program Committee in developing a multiyear Program C-F plan are then to:

1. Construct a *summary* Form 20 Program Element Summary.
2. Construct a *summary* Form 21 Quantity and Cost of Resources.

These two forms represent a draft of the final Program C-F plan, and serve as input to the Program Director in constructing the final plan.

The summary Form 20 and Form 21 are constructed by the Program Committee according to the guidelines provided in Program Analysis Guide #1. The important exception is that the forms are constructed to present data about *all Program Elements in general terms*, rather than about a specific Program Element in terms of great detail.

In constructing the summary Form 20-21:

- Work from the *Program Objectives* developed earlier in this guide.
- Complete each item of the form so that the response is representative of all Program Elements.
- Complete all items of each form.

REVIEW BUDGET YEAR PROGRAM C-F PLAN: Flow Chart Step 5

Once a draft of the Program C-F plan exists in the form of completed Forms 20 and 21, it is the task of the Program Committee to *review the existing plan for the Budget Year* in perspective of the multiyear plans and projections that those forms contain.

The review of the Budget Year plans answers this question:

> Are the objectives, experiences, resources, and costs specified for the coming year still realistic and feasible in light of the new multiyear Program C-F plan?
>
> - If *yes*, no changes in the Budget Year C-F plan are required.
> - If *no*, the Budget Year C-F plan must be revised so that it coordinates with the multiyear Program C-F plan.

In reviewing the Budget Year C-F plan, bear these points in mind:

1. Feasibility of objectives:

   Do the objectives stated for the Budget Year seem feasible in light of *present level of achievement* and the level of achievement desired by the end of Year 1?

2. Feasibility of cost:

   Do the cost projections seem feasible in light of funds expended to date, and cost projections described for Year 1 of the Program?

The Program Committee is responsible for revising the Budget Year C-F plan so that it meets the criteria described in #1 and 2 above.

Flow Chart Step 6

The completed multiyear Program C-F plan, consisting of summary Forms 20 and 21 and revised Budget Year C-F plan, are forwarded to the Program Director.

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INSTRUCTIONAL SYSTEMS ANALYTICAL STUDY CONCEPT LESSON AND PERFORMANCE GUIDES

WESTERN
NEW YORK
PPBS MODEL

An Operational Model for the Application
of Planning-Programming-Budgeting Systems
to Local School Districts

Post-Pilot-Test Version

INSTRUCTIONAL SYSTEMS ANALYTICAL STUDY CONCEPT LESSON AND PERFORMANCE GUIDES

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FUNDAMENTAL CONCEPTS OF THE ISAS

--A Self-Instructional Overview Lesson--

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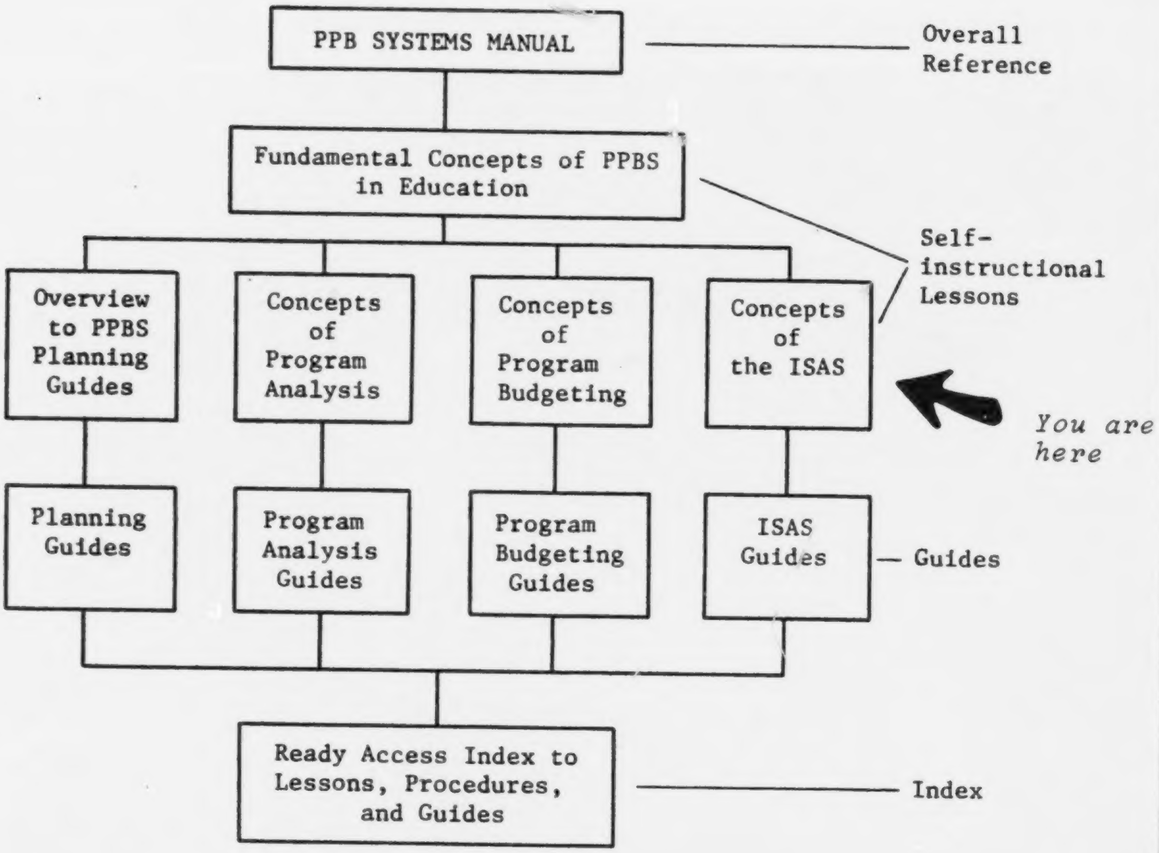
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INTRODUCTION

This self-instructional lesson is designed to familiarize you with *certain basic concepts* that are important to performing an efficient, effective *Instructional Systems Analytical Study*, or *ISAS*. Following this lesson, you will work with the *ISAS guides* in actually performing the study. The main purpose of this lesson is to *facilitate your work* with the ISAS guides by providing you with *knowledge of the fundamental concepts* of the ISAS process.

The term "self-instructional" simply means that the lesson is designed to present content in an *individualized, self-paced manner*. It is our way of talking with you about the concepts of an Instructional Systems Analytical Study (ISAS). The lesson works best if you follow the directions literally, filling in the blank or checking a multiple-choice answer, as indicated. Work through it at the pace most comfortable for you.

An ISAS is, essentially, a *reasoning process*. Learning about ISAS is too.

WHAT AN ISAS IS

An Instructional System Analytical Study is a *process* that the educational planner can follow to make better *predictions* about the success of different alternatives for improving some instructional program area.

Essentially, then, the educational planner is engaging in a process of problem solving and decision making. The ISAS (Instructional System Analytical Study) is an approach that is designed to make educational problem solving and decision making a more systematic and beneficial process.

Typically, the educational planner identifies some segment of the district's instructional program that is in need of improvement. Given the identification of the "problem" area, the educational planner next decides: "What can we do to aid the instructional program in this area?" Next, the planner says, "I think we should try these things ... " "These things" might be any number of actions such as: Add more staff; purchase more instructional materials and educational hardware; rearrange the curriculum schedule; devise a remedial program; bring in a consultant specializing in the particular subject matter, etc.

The ISAS procedure is an attempt to aid the planner (educational problem solver/decision maker) in breaking out of the "Let's try XYZ on our problem and see if it works" mode. The ISAS is a tool that allows the planner to make better *predictions* about the success of a given instructional program change *before* an improvement program is actually implemented.

As a process, ISAS is a *tool*. Even the best tools are of little value is they aren't used. Tools are of little value unless they are used properly. People do work; tools don't.

The following pages focus more precisely on *what an ISAS is,* and *how it is performed.* In presenting the basic ISAS concepts, we decided to *begin at the end.* That is, the *results of an ISAS,* or *what it all means,* are discussed *before* you are told *how these results are obtained.*

Our rationale: If you know *where* you are going, and *why,* then you are more likely to want to know *how to get there.*

OVERVIEW OF ISAS PROCEDURES

Let's get started in exploring the process of an Instructional System Analytical Study by going through a little reasoning process.

Suppose that you have already gone through an analysis of some instructional program area that has been identified previously as needing improvement; for example, "5th Grade Reading." Suppose that you have identified Alternatives A, B, or C as actions that could be taken to improve the 5th Grade Reading instructional program.

How would you decide which one to adopt? (Check the best answer below.)

1. I would select the one that *costs* the least. ☐
2. I would select the one that would probably be the most *effective*. ☐
3. I would select the one that gives the best balance between *costs* and *effectiveness*. ☐

Feedback: Sure. The rational educational planner would do #3. That is what ISAS is all about: How to *find* and *select* the program ALTERNATIVE that is most "COST-EFFECTIVE."

"Cost-Effectiveness" is a critical concept of ISAS. If you are buying a new car, the *most effective* one might also be the *most expensive* one. The smart car buyer tries to buy the car that gives him *the most for his money*.

The wise educational planner does not necessarily select the most effective plan for improving instruction *if the costs* cannot be justified.

Before you can SELECT THE MOST COST-EFFECTIVE ALTERNATIVE for improving a given instructional program area, what must you know? (Select the *best* answer.)

1. What the costs of each alternative plan are. ☐
2. What the probable effectiveness of each alternative will be. ☐
3. Really need both costs and probable effects. ☐

Feedback: We suppose that the question above is a give-away, but we want it to be explicit. Before you can decide among given alternatives, you must know the *costs* and *effectiveness* of each. (Answer #3 above.)

Since we are overviewing the *entire ISAS process*, we can now say that there are at least these PROCEDURES of ISAS:

- Determining the probable *effectiveness* of each alternative.
- Determining the *cost* of each alternative.
- Selecting the most *cost-effective* alternative.

Before you can perform the three procedures above, what must you have?

____

(Write your answer here.)

- -

Feedback: It is a rather obvious step, but one of the most important procedures. Before you determine the costs and effects of alternatives, and before you select the most cost-effective alternative, you must DETERMINE WHAT THE ALTERNATIVES ARE.

- -

As an overview of ISAS, the procedures identified thus far are:

1. Determine the *alternative plans* for improving a given instructional program.
2. Determine the *probable effectiveness* of each alternative.
3. Determine the *cost* of each alternative plan.
4. Select the *most cost-effective* alternative.

Is that it? No. The four procedures above are key ones in the ISAS process, but there are *three procedures* that come before the ones above. Let's explore those ...

Suppose that your general purpose is to buy a car. You must first *determine the alternatives, then decide among them* on the basis of *costs and effectiveness*. But there are hundreds of *types of individual cars*! Does this mean that you must do a *cost-effectiveness analysis on hundreds of alternatives?*

You could do that, but cost-effectiveness analysis would not, in that case, *be cost-effective*. What, then, do you do?

1. Narrow the number of possible alternatives in some way. ☐
2. Select several alternatives at random for further cost-effectiveness analysis. ☐

- -

Feedback: We think #1: Find some way to *reduce the number of alternatives* to decide among without going through a complete and detailed analysis.

How do you do that?

1. Establish *maximum criteria* and eliminate any that do not meet the maximum criteria. ☐

2. Establish *must criteria* and eliminate any that do not meet must criteria. ☐

Feedback: It seems to make sense to set up *must criteria* for the alternatives and to eliminate all those that don't meet these baseline standards (#2).

Continuing the automobile example, suppose you determined that your *must criteria* for an automobile were:

- Must have four doors.
- Must get at least 15 miles per gallon.
- Must cost no more than $1,000 down.
- Must require payments of no more than $74.50 per month.
- Must be an American-built car.
- Must be a current year.

In general, how were these criteria determined?

1. By studying the characteristics of the alternative cars available. ☐

2. By studying the characteristics of one's own needs for a car, financial situation, and so forth. ☐

3. By studying the performance characteristics of a few of the cars available, then selecting the ones that seemed reasonable. ☐

Feedback: We "wanted" you to select #2. We suggest that the derivation of *must criteria* is done by studying your needs and characteristics of the situation, *not* by first studying the characteristics of the alternatives.

Given that you have *established must criteria* based on a study of your needs for a car, you then compare all alternatives to these criteria. What do you have left?

1. Narrowed number of alternatives on which to do a cost-effectiveness analysis. ☐
2. The alternative that is the most cost-effective. ☐

Feedback: To this point, you have worked to make further analysis easier by *eliminating* those that don't meet the must criteria (#1).

You are just now starting the cost-effectiveness analysis. How do you perform that analysis?

1. Obviously, you take the *least expensive* one. ☐
2. Obviously, you take the *most effective* one. ☐
3. Obviously, you take the one that *"gives me the most for my money."* ☐

Feedback: #3. Again, that is what *cost-effectiveness analysis* is all about.

Without looking back, can you now write the five ISAS procedures introduced so far? Try your hand at doing so below:

1. ____
2. ____
3. ____________________ ____________________
4. ____
5. ____

Feedback: We hope you wrote something like:

1. Determine the *must criteria* the alternatives must meet.
2. Determine the *alternatives* that meet the must criteria.
3. Determine the *effectiveness* of each alternative.
4. Determine the *cost* of each alternative.
5. Select the most *cost-effective* alternative.

- -

Suppose that you determine the must criteria that the alternatives for improving a given instructional program must meet. You then examine 10 different alternatives and find that *only one plan* meets or exceeds must criteria; what do you do?

1. I'm through. There is no need for further analysis. ☐
2. I've still got to do the rest of the ISAS procedure. ☐

- -

Feedback: If only one plan meets or exceeds must criteria, then you are home free. Select that one. (Therefore, #1 above is the better answer.) Unless, of course, you consider "Do nothing" as an alternative to implementing the plan that meets the objectives.

- -

Buying a car, deciding which house to buy, and other tasks that require decision making among alternatives lend themselves to this sequence quite readily.

Will the same process work for a complex task like instructional program improvement? Check your opinion.

1. *Absolutely not*. There are too many variables to consider. There are too many alternatives to consider. ☐
2. *Definitely*. All you are really saying is that we should make decisions on some kind of systematic basis. The more systematic we can be, the better. ☐
3. *Maybe*. I need more evidence. ☐

- -

Whatever your private opinion, let's say that the overall steps discussed so far represent a useful decision-making MODEL. (Models are to be considered "useful" or "not useful." They are not to be considered "correct" or "incorrect." Educators have found the ISAS model useful in aiding their decisions about cost-effective instructional system selection.)

MORE DETAILS ABOUT EACH PROCEDURE

Before the five fundamental procedures of an ISAS are undertaken, two additional steps are required:

Procedure 1: *Identify Program Element for an ISAS.*

Procedure 2: *Organize the ISAS.*

In this concept lesson, we will not explore these first two procedures in any detail except:

Procedure 1: *Select a Program Element for ISAS*

- Select elements that will have greatest impact, show some measurable deficiency by present instructional methods, and offer impact on a long-range basis. Examples of "Program Element": Language Arts, Sixth Grade, Industrial Arts, Mathematics, etc.

- Procedure 1 is very important in that it represents critical *"front-end analysis"* of district needs and priorities. Precise, step-by-step guides for Procedure 1 provide for the effective, accurate accomplishment of the procedure.

Procedure 2: *Organize the ISAS*

- The ISAS must be organized so that each role is filled by highly qualified personnel who work in a specific sequence to input to one another according to the ISAS procedures.

ISAS Guides 1 and 2 accompanying this lesson provide step-by-step directions for Procedures 1 and 2.

Conceptually, Procedures 3 through 7 are the most challenging. Let's concentrate on those ...

PROCEDURE 3: DETERMINE OBJECTIVES

During the last 10 years, much attention has been paid in education to "Objectives." What *is* an Objective?

1. A statement of what the *student* will be able to do and will know at the end of instruction. ☐

2. A statement of what the *teacher's* purpose is in teaching a unit. ☐

- -

Feedback: Both are objectives; however, recent emphasis in education has been on #1. When we say "objectives" in ISAS, we mean what the student will be able to do and know at the end of instruction.

- -

Which of these is a better example of an objective?

1. "To teach a course in Business Education for one semester that will deal with general secretarial skills." ☐

2. "On completion of the unit, the student will be able to compute Federal and state income tax payments in no more than one hour, given a tax schedule and gross income data for a hypothetical business." ☐

- -

Feedback: #1 is a goal or purpose from the teacher's point of view, and there is nothing wrong with that. However, #2 is the better example of an objective as used in ISAS.

- -

Although ISAS Guide #3 will give more complete details and other requirements, the most important attributes of an objective are that they state in detailed terms:

- WHO the target student is.
- WHAT the student will be able to DO after instruction.
- HOW WELL the student will be able to perform.

Example: On completion of the unit:

WHO - the 5th Grade student in Language Arts

WHAT - discriminate between the subject and object of a sentence

HOW WELL - in at least 9 out of 10 cases for simple, declaratory sentences and at least 7 out of 10 for compound sentences.

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The overall ISAS process is:

Procedure 1. Identify a Program Element for ISAS.
Procedure 2. Organize the ISAS.
Procedure 3. Determine the Objectives.
You are here.
Procedure 4. Determine alternative plans.
Procedure 5. Determine effectiveness of each.
Procedure 6. Determine cost of each.
Procedure 7. Select most cost-effective alternative.

The OBJECTIVES are the basis for all subsequent work. We've found the best (most helpful) objectives describe:

- The TARGET POPULATION. (*Who* the student is.)
- The TERMINAL PERFORMANCE. (*What* the student will be able to do.)
- The MINIMUM CRITERIA. (*How well* the student will be able to do the indicated performance.)

The most difficult requirement is the last one, *Minimum Criteria.*

We've found it helpful in experience with the ISAS to think about criterion measures in terms of three categories:

1. How *long* the performance takes. (Time)
2. When the performance is *finished.* (Completeness)
3. The *standards* of performance. (Accuracy or "how well.")

Label each excerpt from the criteria portion of the objective below:

"T" if the criterion relates to time criteria
"C" if it relates to completeness criteria
"A" if it describes accuracy criteria.

1. Type 35 words per minute. _____
2. With no more than two erasures per page. _____
3. Type a letter including address and signature space. _____
4. 80% score on a final exam. _____
5. All materials put away. _____
6. By the end of the semester. _____

Feedback: 1-T 2-A 3-C 4-A 5-C 6-T

PROCEDURE 3: CLASSIFY OBJECTIVES

Some educators find it useful to CLASSIFY objectives in terms of the kind of behavior the objective calls for.

In general, there are three major classes of objectives:

1.	COGNITIVE:	Covert behavior, "thinking" behavior, or knowledges.
2.	PSYCHOMOTOR:	Covert behavior which manifests itself as overt behavior; behavior that you can see; behavior that requires muscular movement.
3.	AFFECTIVE:	Behavior that involves *motivation-to-do*.

Classify the objectives listed below as "C" for cognitive, "P" for psychomotor, or "A" for affective.

_____ 1. Student will appreciate the fact that procedures for weighing chemicals must be done carefully.

_____ 2. Given a choice, students will select reading as a free-time activity over going to the playground.

_____ 3. Able to draw right angles within ±1°.

_____ 4. To play the musical scale on the piano within 5 seconds.

_____ 5. To calculate sums of problems involving three single-digit items without writing them down.

_____ 6. To dial a telephone number of seven digits without error.

_____ 7. To use the concept of "one man, one vote" in discussing the rise of democracy in the early Colonial period.

- -

Feedback:
1. Probably "A," but no real way of telling. This example points out the uselessness of such nebulous terms as "appreciate" in writing objectives.
2. Definitely "A." (Illustrates "approach tendencies," a true measure of motivation.)
3. P
4. P (Note the close relation of psychomotor and cognitive behavior.)
5. C
6. P
7. C

We are discussing the more important concepts of ISAS Procedure 3: *Determine and Classify Objectives.*

As a brief review, match the basic requirements of a good objective with the partial example ...

REQUIREMENT

1. Terminal performance
2. Time criterion
3. Completeness criterion
4. Accuracy criterion

EXAMPLE

_____ A. "In no more than 5 minutes."
_____ B. "Label parts of speech."
_____ C. "Assemble materials needed."
_____ D. "At least a 75% score on an exam."
_____ E. "With no more than two mispronunciations per paragraph."
_____ F. "Pronounce the basic verbs of Spanish."

- -

Feedback: A-2 B-1 C-1 D-4 E-4 F-1

- -

Match the class of objective with the partial example ...

CLASS

1. Cognitive
2. Psychomotor
3. Affective

EXAMPLE

_____ A. List the parts of speech.
_____ B. Run 100 yards in 18 seconds.
_____ C. Hammer nails into a 2-inch board.
_____ D. Recite the "Gettysburg Address" from memory.
_____ E. Like math.

- -

Feedback: A-1 B-2 C-2 D-1 E-3

- -

It should be noted, again, that although there is nothing wrong with setting objectives in the "Affective" category, they cannot be easily measured. For example, how would you know if you had succeeded in achieving "E" above, "Like math."?

PROCEDURE 4: DETERMINE ALTERNATIVE PROGRAMS

Now we come to the heart of the ISAS. By the time you get to Procedure 4, much is known about the problem the ISAS will address. The general problem area has been specified and studied (Procedure 1); the team to perform the ISAS has been selected (Procedure 2), and the basic objectives are known (Procedure 3).

The process of determining the alternate programs for analysis of costs and effectiveness begins with a more precise specification of the SUB-PROGRAM ELEMENT AREAS within the Program Element selected for an ISAS. For example:

Program Element: *Language Arts, Grades 1-6*

Sub-Program Element: *Language Arts - Grade 6*

Sub-Program Element Area: *Grammar*

1. *Recognition of subject, verb, and object.*
2. *Recognition of independent clauses.*
3. *Use of ten basic prefixes.*
4. *Use of rules to form plurals.*
5. *Recognition of dependent clauses.*
6. *Use of rules for subject-verb agreement.*
7. *Use of eight basic suffixes.*
   and so forth

If we would add the phrase, "Students will be able to," and specify the minimum criteria of the performance, would the above areas become objectives of the course? ______________

- -

Feedback: Yes, we think so. *Writing objectives* and *specifying the deficiencies in skill and knowledge* are very similar.

- -

Given, then, the areas of deficiency within the Sub-Program Element, the next tasks are:

- Determine the *present level of competence* of the student in each area.
- Estimate the *level of difficulty* each area presents to the target student.

Why do we do these two tasks?

1. To determine what the relative emphasis of the alternative should be. ☐
2. To determine how we can evaluate the Program. ☐

Feedback: We perform the previous two tasks to determine what areas the alternative should emphasize. (#1 on the previous page.)

For example, look at this analysis:

PROGRAM ELEMENT: *LANGUAGE ARTS, GRADES 1-6*		
SUB-PROGRAM ELEMENT: *LANGUAGE ARTS, GRADE 6*		
SUB-PROGRAM ELEMENT AREA: *GRAMMAR*		
COMPONENTS	PRESENT COMPETENCE	ESTIMATED DIFFICULTY
1. Recognition of subject, verb, and object.	*Acceptable*	*Moderate*
2. Recognition of independent clauses.	*Low*	*Great*
3. Use of ten basic prefixes.	*High*	*Moderate*

Which component, then, should probably get more emphasis in the alternative design?

1. Subject, verb, and object recognition. ☐
2. Independent clause recognition. ☐
3. Use of ten basic prefixes. ☐

Feedback: Given only the above analysis, we would select #2 because the deficiency is "low," and correspondingly, the difficulty in teaching and learning is "great."

The example above illustrates two rules of an ISAS. What are they?

1. Give preference to areas of deficiency that: ☐
    a. Show greatest need.
    b. Are difficult problems to the student.
2. Give preference to areas of deficiency that: ☐
    a. Have relatively small deficiency.
    b. Are being solved by present methods.

Feedback: #1 describes the ISAS rules.

There are three main concerns in DETERMINING THE ALTERNATIVES for improving a given instructional program:

1. Which objective(s) should be EMPHASIZED.
2. What the SEQUENCE of the objectives should be.
3. What the PRESENTATION ACTIVITIES should be.

As we have seen, EMPHASIS is determined by examination of the present competence of the student and the estimated difficulty of the Sub-Program Element Area.

SEQUENCE of the objectives (Sub-Program Element Areas) is determined largely by consideration of how the objectives INTERACT.

Objectives *interact* in three ways:

1. FACILITATE: One objective is prerequisite to the understanding of another, or otherwise *aids* the achievement of another.
2. COMPETE: One objective *interferes* with the learning of another.
3. NO INTERACTION: A given objective has no relationship to the other.

In terms of SEQUENCE that the objectives should be achieved in designing improvement programs, what is one obvious rule?

1. Objectives (skills and knowledges) that *facilitate* another objective should be taught *after* the objective it facilitates. ☐
2. Objectives that *facilitate* another objective should be taught *before* the objective it facilitates. ☐

* * *

Feedback: Sure. If one bit of skill and knowledge aids (facilitates) another set of skills and knowledges, it should be taught *before* the facilitated performance.

* * *

In determining the SEQUENCE in which the objectives should be taught, the concept of INTERACTION should be considered. Skills and knowledges may have one of three relationships. List the ways:

1. ______________________________

2. ______________________________

3. ______________________________

Feedback: We hope you wrote something like: "Compete," "Facilitate," and "No interaction."

Objectives that facilitate others should be taught before the objectives facilitated.

If objectives have "No interaction," does this influence the *sequence* of the instruction?

It does not. If objectives have no relationship to each other, then it doesn't matter what their relative sequence.

What about the objectives that *compete?* What do you think the research on learning shows? Check the general rule:

1. Objectives that compete should be taught in as close approximation as possible. ☐

2. Objectives that compete should be taught as far apart as possible. ☐

Feedback: Surprisingly #1 is supported by learning process research. Skills and knowledges that *might be confused* by the student should be taught *as close in time as possible.*

Summarize the rules for sequencing yourself:

1. Objectives that facilitate other objectives should: ______________________________

2. Objectives that compete with each other should: ______________________________

3. Objectives that neither compete nor facilitate: ______________________________

Check your responses at the top of the next page.

Answers to Page 16:
1. ... taught *before* the objectives they facilitate.
2. ... taught *in as close approximation* as possible.
3. ... taught in any logical sequence.

EXAMPLE A:

Suppose that you are dealing with alternative Programs that included this objective: "The student will be able to use 10 basic word prefixes ... " Which one of the following would *compete* with the learning of the objective?

1. Use of rules for subject/verb agreement. ☐
2. Use of word suffixes. ☐
3. Use of rules for forming plurals. ☐

Feedback: The second item above *competes* with the prefix objective. If you selected that one, we infer that you have discovered one of the rules for interaction: For objectives to compete, the objectives must be *similar* in some way.

EXAMPLE B:

Suppose that you have a Sub-Program Element Area that you are analyzing that involves this objective: "On completion of the unit, the student will be able to build a simple wooden structure, such as a birdhouse." Which one of the following skills/knowledges would most *facilitate* the objective?

1. The student will be able to use basic hand tools such as hammer and saw. ☐
2. The student will understand the metric system. ☐
3. The student will be able to name five common woods used in building American homes. ☐

Feedback: The basic skills of using hand tools would be *most facilitating* to the objective concerning simple-structure-building. (#3 has somewhat of a relation to the objective, perhaps, but #1 is the clear choice here.)

In terms of *sequencing* the objectives in the examples above,

1. How would you treat Example A?
2. How would you treat Example B?

Feedback for Page 17:

1. The skills/knowledges of prefixes and suffixes should be taught as close as possible in time.
2. The skills/knowledges of use of hand tools should be taught before the skill/knowledges of building simple structures.

- -

Procedure 1: Select Program Element for ISAS.

Procedure 2: Organize for the ISAS.

Procedure 3: Determine Objectives for Improved Program.

Procedure 4: Determine Alternate Programs. ◀ *You are here*

  a. Determine which objectives to emphasize.
  b. Determine sequence of the objectives.
  c. Determine presentation activities.

We are discussing Procedure 4. We've introduced Tasks a and b. Let's discuss the concepts relating to selection of presentation activities for improving a given instructional program ...

"Presentation activity" is a general concept that is inclusive of the *method* employed in achieving the objective and the *medium* used.

Label each of these "method" or "medium":

1. Lecture __________
2. Group instruction __________
3. Lab session __________
4. Question & Answer session. __________
5. Audio cassette __________
6. Movie __________
7. Film strip __________
8. Chalkboard __________

- -

Feedback: Items 5 through 8 are examples of *media*. The first four are *presentation methods*.

- -

It goes beyond the scope of this lesson to present the rules and concepts of specifying methods and media -- in fact, it goes beyond the scope of the entire PPBS project to do so. You are professional educators, and these concepts are the essence of your jobs. However, the guides accompanying this lesson *summarize* some of the concepts concerning selection of method and medium.

Before taking a break, summarize for yourself the fundamental concepts introduced in the first part of the lesson. (Check off each concept as you recall it. Page references are provided for review purposes.)

☐ 1. An Instructional Systems Analytical Study is a *systematic process* that can be used as a tool for the educational planner to *make predictions* about *alternate Programs* for *improving a given area of instruction. Page 2.*

☐ Our approach to ISAS is based on *seven discrete procedures* carried out by *several roles* which are *organized for the purpose of doing the Study. Page 8.*

☐ 3. Basically, ISAS involves *determining objectives* for a given instructional area in need of improvement, *determining alternative Programs* for improving the instruction in that area, *determining the probable effectiveness* of *each* of the alternative Programs, *determining the costs* of *each* alternative Program, and *selecting the most cost-effective alternative. Pages 3-7.*

☐ 4. *Preparing objectives* entails describing *what* the student will be able to do after the instruction, describing *who the student is,* and the *criteria* that the student must meet in terms of time, completeness, and accuracy. *Pages 9-12.*

☐ 5. *Determining alternative Programs* to meet the instructional objectives entails determining the *emphasis* of each objective, the *sequence* of each objective, and the *presentation activities* of each objective. *Pages 13-18.*

☐ 6. *Emphasis* of each objective is determined by considering the *present level* of student competence in the skills and knowledges indicated by the objective and the *relative difficulty* in learning the objective. *Page 14.*

☐ 7. The *sequence* of the objectives is determined by considering the *interactions* of the objectives: *compete, facilitate,* or *no interaction. Page 15.*

☐ 8. Determining the *presentation activities* involves considering the *teaching method* and *media* to be employed. *Page 18.*

If you want to break, this is a good place.

PROCEDURE 5: DETERMINE EFFECTIVENESS OF ALTERNATIVES

Now, this is the tough one. It is "tough" because it requires subjective evaluation in a complex area *in advance*. To take some of the subjectivity out of the prediction concerning alternate Program's effectiveness, we've devised a special *decision-making procedure*.

Given: Instructional system alternatives that meet *must criteria*. Our objective is to assign some kind of relative effectiveness "value" to them. Does this mean:

1. An *overall* value of the alternative? ☐

OR

2. A value *relative* to the other alternatives? ☐

Feedback: We mean #2.

A "value" is *only helpful* if we know *what* it is compared to. Therefore, what is our general purpose in determining the effectiveness value of alternatives?

1. To rank them *absolutely*. ☐
2. To express their *relative rank*. ☐

Feedback: We mean #2 again.

What we are saying is that a mere rank-ordering of anything is not as helpful as ranking them *and showing the relative values*. For example, we could say *Alternative A* costs the least, *Alternative B* costs the next least, and *Alternative C* costs the most -- therefore, rank-ordered 1 to 3 in terms of cost. But this is *not very helpful* in that *A* may cost $5,000; *B*, $5,001; and *C*, $1,000,000! It is the *distance* between the ranks that may count and be valuable to our C-E decision making.

In terms of effectiveness, then, we need to rank the instructional program alternatives in such a way to express *relative* values. We have devised a "weighting" system that is helpful in doing it. (ISAS Guide #5.)

The first effort in determining *relative effectiveness of alternatives* is to decide what we mean by "effectiveness." In other words, what EFFECTIVENESS VARIABLES must be considered for all of the alternatives.

At the top of the opposite page is a chart that shows several variables. Some of them we consider *effectiveness variables*. Check the appropriate block according to your opinion ...

VARIABLE	IS IT AN EFFECTIVENESS ONE?		
	Yes	No	?
1. Degree that alternative will treat individual differences in students.			
2. Amount of hardware alternative will require to be purchased.			
3. Consumability of the written materials required by the alternative.			
4. Effect on the Teacher-Student ratio.			
5. The student's reaction to the alternative.			
6. The teachers' reaction to the alternative.			
7. Effects on student retention of the skills and knowledges taught.			
8. Probability that the objectives for the skills/ and knowledges will be met by the alternative.			

- -

Feedback: We consider 1, 5, 6, 7, and 8 as "Yes." That is, these variables are definitely relevant to effectiveness. We think 2 and 3 are "No." These are COST variables, not effectiveness variables. We would have checked "?" for #4 in that this variable might be both an *effectiveness* and a *cost* variable. (Assuming that one believes that a lower student-teacher ratio improves effectiveness, and that it increases costs. Of course, the matter is not as simple as that.)

- -

No matter if you agree with our choices of the variables or not, no matter if you can think of many other effectiveness variables, the point we are making is: in considering the effectiveness of alternatives, we must first DEFINE THE VARIABLES THAT MAKE UP "effectiveness."

Do you consider the variable "Degree of individualization" more important than the variable, "Degree that alternative will affect retention"? ____________

- -

Feedback: There is no "correct" answer to that one; thus, the nebulous element we are talking about in giving an effectiveness value to alternatives. However, we MUST make judgments like that, given that we are to select *one* instructional system alternative. This is where the weighting comes in ...

- -

Assume that you've generated the instructional alternatives that meet must criteria (*ISAS Procedures 1 through 4*). Assume that you've done the first step of *Procedure 5*, which is "Determine the variables of effectiveness."

The next step in determining relative effectiveness is "WEIGHT THE *VARIABLES*." This consists of comparing each variable with every other, deciding as to the *relative importance* of each and indicating that importance by assigning a *numerical weight* to each variable.

Are *weights* for the effectiveness variables enough? No. What is missing is a way of *evaluating* each alternative's probable effectiveness. (The weights merely indicate the *relative importance* of the variables themselves, not how well a *given alternative* compares to the variables.) If we are going to give *differential* value to each alternative *against* each variable, what do we need in addition to weights?

1. A *value scale* for each effectiveness variable. ☐
2. A *weighting* of the alternatives, also. ☐

- -

Feedback: We need a VALUE SCALE (#1) in addition to *weights* for the variables.

- -

This might be a Value Scale for one variable --

VARIABLE	WEIGHT OF VARIABLE	VALUE SCALE
Degree of individualization provided by the alternative.	4	5 - Completely individualized 4 - 3 - 2 - 1 - Completely lock-step

What do you think is done to get a *weighted* value score for any given alternative?

1. Select a *value* from the scale and *add* it to the weight. ☐
2. Select a *value* from the scale and *multiply* times the weight. ☐

- -

Feedback: Multiply *value* times *weight* for each alternative for each variable. (#2)

- -

492

To review the Procedure 5: *Determine Effectiveness of Alternatives*, check off the items as you recall them.

☐ 1. The *purpose* of the procedure is *to determine a relative, weighted value* of each alternative instructional system in terms of its *relative EFFECTIVENESS.* (A prediction of its effectiveness in meeting the objectives.)

☐ 2. To do this, you need *alternatives* (Procedures 1-4), the *relevant variables* (degree of individualization, teacher's reaction, etc.), the *relative importance* of the variables (weight that each variable carries compared to every other variable), and a *value scale* (high to low, for example).

3. To get a weighted effectiveness score of the alternatives, you:

   ☐ a. Consider *each alternative* against *each variable.*

   ☐ b. Select the *appropriate value* from the value scale.

   ☐ c. Multiply the *value* times the *weight.*

   ☐ d. Repeat for *each variable* for *each alternative.*

   ☐ e. Add the weighted scores to get *relative rank.*

An example follows ...

Below is a hypothetical example of the effectiveness ranking process. Please study it carefully.

EFFECTIVENESS VARIABLES	WEIGHTS	VALUE SCALE	ALTERNATIVES		
			A	B	C
1. Probability that objectives will be met.	8	3-Highly probable 2- 1-Low probability	24	8	16
2. Degree of individualization that alternative allows.	4	3-Individualized 2- 1-Lock-step	8	4	8
3. Effect on teacher-student ratio.	3	3-Decreases 2- 1-Increases	6	6	6
4. Teachers' probable reaction to the instructional system.	3	3-Favorable 2- 1-Unfavorable	6	6	6
5. Students' probable reaction to the instructional system.	3	3-Favorable 2- 1-Unfavorable	9	6	6
6. Probable effect on students' long-term retention.	2	3-Favorable 2- 1-Unfavorable	4	4	4
7. Probable difficulty in administering the system.	1	3-Difficult 2- 1-Easy	3	2	2
WEIGHTED EFFECTIVENESS SCORE			60	36	48
			A	B	C

1. Which *effectiveness variable* did the decision maker above consider most important? ________________

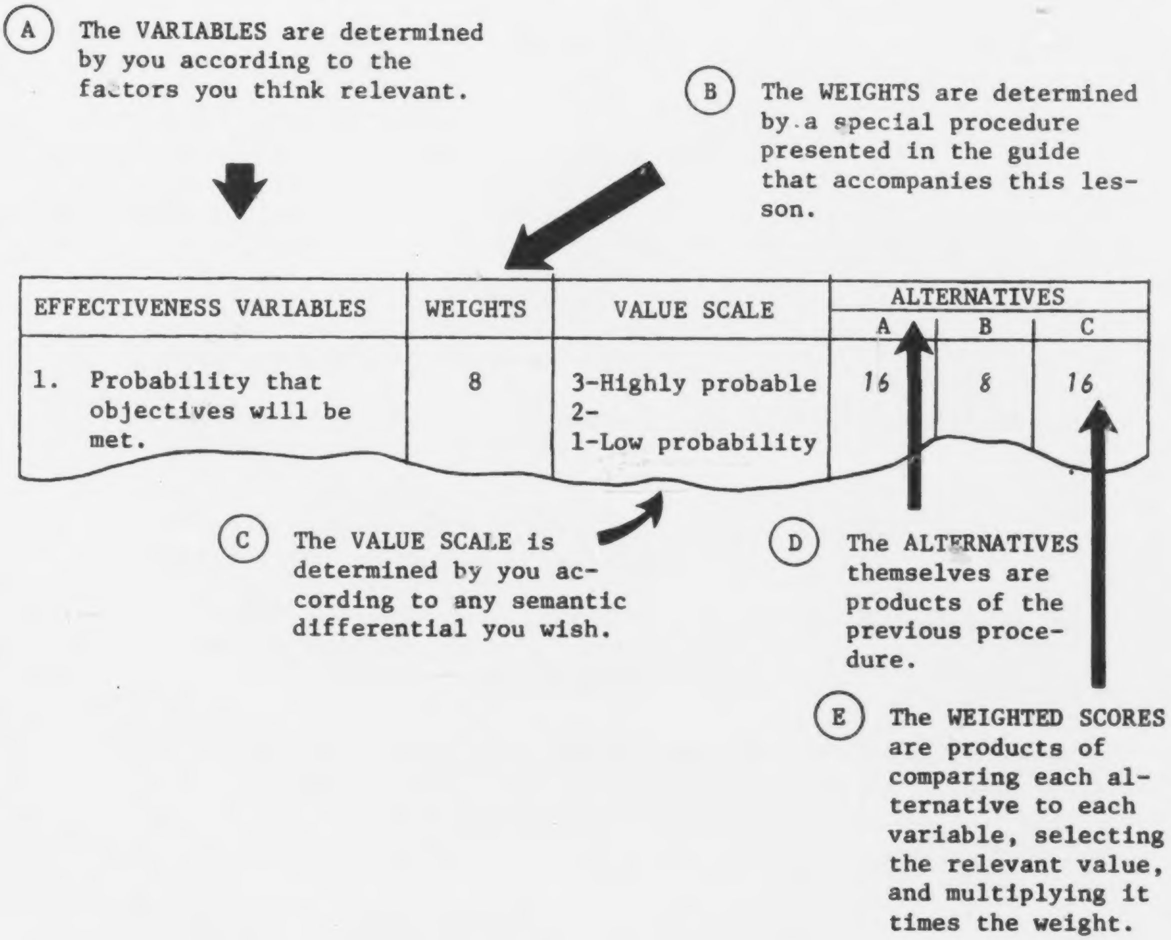
2. How do you know? ____

3. Which *alternative* shows the highest estimate of effectiveness? ________________

- -

Feedback:
1. 1 - Probability that objectives will be met.
2. It carries the highest weight (8).
3. A (Total weighted score of 60.)

- -



Ⓐ The VARIABLES are determined by you according to the factors you think relevant.

Ⓑ The WEIGHTS are determined by a special procedure presented in the guide that accompanies this lesson.

EFFECTIVENESS VARIABLES	WEIGHTS	VALUE SCALE	ALTERNATIVES		
			A	B	C
1. Probability that objectives will be met.	8	3-Highly probable 2- 1-Low probability	16	8	16

Ⓒ The VALUE SCALE is determined by you according to any semantic differential you wish.

Ⓓ The ALTERNATIVES themselves are products of the previous procedure.

Ⓔ The WEIGHTED SCORES are products of comparing each alternative to each variable, selecting the relevant value, and multiplying it times the weight.

For the hypothetical case on the opposite page, what would you recommend to the educational decision maker?

1. Select Alternative Program A as the approach to adopt for improving the instructional program. ☐

2. Rank Alternative A as the highest on effectiveness, but don't decide to adopt Program A until the comparative costs are determined. ☐

- -

Feedback: We hope that you selected #2 above. Recall that the essence of ISAS is comparing *effectiveness and costs* of alternate Program improvement approaches. Before the final decision can be made, the *costs* of each must be determined.

- -

PROCEDURE 6: DETERMINE COSTS OF EACH ALTERNATIVE

The purpose of cost estimating in an ISAS is to provide inputs for decision making, *not* for detailed budgeting. (Other subsystems in the PPBS program deal with this more precise level of costing.)

Procedure 5 leads us to consider half the input to decision making: *effectiveness of given Program alternatives.* We now need to address the second major variable so that *the most cost-effective alternative* can be adopted to improve a given instructional program.

A. Examples of cost items: TV sets, tape recorders, new work tables, tachistiscope (a device for aiding reading), teaching machines.

B. Examples of cost items: Consultants, teachers, maintenance men, teacher aids, clerical personnel.

C. Examples of cost items: Textbooks, paper, special marking pencils, programmed texts, workbooks.

D. Examples of cost items: Admission fees for field trips, telephone calls, tuition for teacher-training courses.

We are illustrating cost *categories.* Give each group above a general category name:

A. ______________________________

B. ______________________________

C. ______________________________

D. ______________________________

- -

Feedback: Obvious?

A. Equipment
B. Personnel
C. Supplies
D. Miscellaneous or "Other." (A catchall category for any costs that *don't fit* the first three.)

- -

Suppose that you are considering the costs of two alternative Programs for improvement of a given instructional problem area. Alternative A costs $20,000 for four years. Alternative B costs $20,000 for four years. What can you infer? (Assume that effectiveness is equal.)

1. Adopt either A or B, since the costs are the same. ☐

2. Need to know how the $20,000 is distributed over the four-year life of the Program. ☐

- -

Feedback: Although the *total* costs of the two alternatives are the same, *how* the money will need to be spent may be an important factor to your district. Therefore, #2 is probably the better answer.

- -

For example, suppose that you further analyzed the costs of the two alternatives and produced a chart that looked like this:

ALTERNATIVE	Year 1	Year 2	Year 3	Year 4	Total
A	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$20,000
B	17,000	1,000	1,000	1,000	20,000

What difference does the chart indicate?

1. None. The total costs are still the same. How the money is spent is irrelevant. ☐

2. It depends if the $17,000 is available in the first year. ☐

- -

Feedback: Yes, it may depend on the *availability of funds* to start-up the project. For example, suppose the district could find *$5,000 a year for four years* (Alternative A) but could not expend the *additional $12,000* required in Year 1 of Alternative B, even though it costs less than Alternative A in subsequent years. Assuming constant effectiveness, the district would opt for Alternative A.

- -

Our point: COSTS SHOULD BE DETERMINED YEAR-BY-YEAR OVER THE "LIFE" OF THE PROJECT.

Suppose that you estimated the total costs for each alternative for *five years*, and it looked like this ...

ALTERNATIVE	YEAR					TOTALS
	1	2	3	4	5	
A	$ 7,000	$5,000	$5,000	$5,000	$5,000	$27,000
B	15,000	5,000	5,000	5,000	5,000	35,000
C	5,000	5,000	5,000	5,000	5,000	25,000
D	5,000	6,000	7,000	8,000	9,000	35,000

Examine the figures and speculate:

1. Which alternative might require more and more equipment to be added during the five-year Program? ____________
2. Which alternative might require equipment to be purcased the first year only? ____________
3. Which alternative might require $2,000 for hiring a consultant to get started? ____________

- -

Feedback: There is no real way of telling the answers to the above without more information, but the point we are making is that each alternative carries not only different total cost requirements, but expenditure during different periods -- a factor often overlooked in costing out alternatives. For the record:

1. D (Implies adding new piece of equipment each year.)
2. B ($10,000 extra the first year.)
3. A ($2,000 for the consultant.)

- -

Some general concepts about costs:

- Be as *precise as practical*, but remember that the first purpose is to *determine relative cost-effectiveness.*
- Consider these costs: *personnel, equipment, supplies,* and *miscellaneous.*
- *Plot costs* over some kind of *time increment* so that *additional costs may be revealed,* and that you'll know when the funds are needed.

PROCEDURE 7: SELECT MOST COST-EFFECTIVE ALTERNATIVE

By the time you have completed Procedures 1-6, the most cost-effective alternative is usually obvious. When it isn't, Procedure 7 becomes important. Let's do a little reasoning ...

Suppose that you are buying a house instead of planning instructional program improvement. You've determined your *must criteria* for a house and have eliminated from consideration all those houses that do not meet them. (Cost too much, not enough bedrooms, too far from work, etc.) You've determined the *effectiveness* (benefits) of each of the remaining alternative houses.

For example:

House A has a weighted effectiveness of 10.

House B has a weighted effectiveness of 5.

House C has a weighted effectiveness of 5.

Suppose:

House A costs $40,000.

House B costs $30,000.

House C costs $25,000.

Between which two houses is the essential decision to be made?

1. A and B. ☐
2. A and C. ☐
3. B and C. ☐

Feedback: Essentially, *House B* is eliminated in that it *does not offer more effectiveness than C,* and *costs more.* Therefore, the real decision to be made is between A and C. We would choose *A*, given only those facts.

Describe what you think is our reasoning: ______________________________

____

Feedback: We simply expressed the *costs* and *effectiveness* of each alternative as a RATIO. House A is 10/40,000 = 1 to 4,000. House C is 5 to 25,000 or 1 to 5,000. Therefore, *House A* buys *more effectiveness per dollar*.

Back to education now ...

Given the ALTERNATIVES for improving a given instructional program; given the probable relative EFFECTIVENESS of each alternative; given the COSTS of each alternative, the last procedure is to SELECT THE MOST COST-EFFECTIVE ALTERNATIVE.

For example, suppose that your previous work produced this chart:

ALTERNATIVE	Cost Year 1	Cost Year 2	Cost Year 3	Total Cost	Effectiveness
A	$10,000	$1,000	$1,000	$12,000	6
B	4,000	4,000	4,000	12,000	3

1. Costs *not* considered, which would you choose? ________

2. If you had $10,000 in hand and knew that you'd have $1,000 for each of the next two years, which alternative would you choose? ________

3. If you did *not* have $10,000 for the first year, but only $4,000 for each of three years, which alternative would you choose? ________

- -

Feedback:
- If cost is not a factor, then you'd select A because it has a higher relative effectiveness.
- If you had the $10,000 first-year costs, then you'd select A because of higher effectiveness.
- If you had access to the total costs, but only limited funds for the first year, you'd be "forced" to select B.

- -

Suppose you had this case:

ALTERNATIVE	Year 1	Year 2	Total Costs	EFFECTIVENESS
A	$2,500	$2,500	$5,000	2
B	7,500	7,500	15,000	8
C	5,000	5,000	10,000	3

Assume that you can meet any of the requirements. That is, *when* the money is spent is *not* a factor.

1. Which alternative would you choose? ________

2. Why? ____

Answers to Page 30:

1. We'd choose B.
2. The choice is between A and B. We asked ourselves the question, "Is it worth spending three times the money ($15,000 compared to $5,000) to yield four times as much effectiveness?" (8 compared to 2) We obviously said "yes."

SUMMARY OF ISAS

Procedure 1: SELECT A PROGRAM ELEMENT FOR AN ISAS

Product: An instructional Program Element that has *high-priority need for improvement.* (Language Arts, Grades 1-6, for example.)

Procedure 2: ORGANIZE THE ISAS

Product: Selection of several roles to be filled for conducting the procedures described. (Complete guidelines given in the ISAS Guide #2.)

Procedure 3: DETERMINE OBJECTIVES

Product: Statements of the *skills and knowledges* the student must have in the Program area selected, plus the *minimum criteria* of that performance.

Procedure 4: DETERMINE ALTERNATIVES

Product: At least one instructional system that meets *must criteria* for improvement of the instructional area selected. (Usually more than one.)

Procedure 5: DETERMINE EFFECTIVENESS OF EACH ALTERNATIVE

Product: A special ranking of the alternatives according to *relative effectiveness.*

Procedure 6: DETERMINE COSTS OF EACH ALTERNATIVE

Product: Expenditure required for each alternative *over time.*

Procedure 7: SELECT MOST COST-EFFECTIVE ALTERNATIVE

Product: The instructional program that will be *developed* and *implemented.*

GENERAL REVIEW

Please answer the following questions concerning the fundamental ISAS concepts presented in this lesson.

1. Describe the characteristics of a good instructional objective: ________

____

____

2. a. Name the categories of *types of behavior* for classifying objectives:

____

b. Classify these:

(1) Student will tend to use free time for increasing reading skills. ________________

(2) Able to compare and contrast reasons for the Civil and Revolutionary Wars. ________________

(3) Given a choice, will select classical music more frequently than present. ________________

(4) Able to add a series of 7 two-digit and one-digit numbers without a pencil. ________________

(5) Able to saw a board within ±1% of being square. ________________

3. In determining alternate instructional program designs, how is the emphasis of objectives determined?

a. Examining budget and time available. ☐

b. Examining present student competence and difficulty of the objective. ☐

c. Examining the interest the student and the teacher have in the subject matter. ☐

4. In determining alternatives for improving instructional programs, how is the sequence of the objectives determined?

a. Based on the interactions of the skills and knowledges. ☐

b. Based on the sequences presented in the textbooks on the subject. ☐

5. In determining alternate designs of the instructional program for improving the Program Element Area selected, what two components make up the "presentation activity"?

   a. Instructional methods and media. ☐

   b. Objectives and alternatives. ☐

   c. Lectures and practice activities. ☐

6. Given at least two alternatives for instructional programs, describe how you would predict their relative effectiveness:

7. Name the *categories* of costs to determine the total costs of each alternative:

8. In costing alternatives, which of these is the important consideration:

   a. Costs year-by-year and total costs. ☐

   b. Total costs only. ☐

   c. First-year costs only. ☐

9. Given two alternatives that both meet minimum cost and effectiveness criteria, how would you select between them?

   a. The one that is most effective. ☐

   b. The one that is the least costly. ☐

   c. The one that buys the greatest effectiveness for the money. ☐

Feedback on the following page.

Feedback to Pages 32-33.

We aren't looking for precise wording, but here is ours for comparative purposes ...

1. A good instructional objective relates the terminal skills and knowledges of the student (WHAT), the minimum criteria of performance (HOW WELL), and WHO the student is. (We'll talk about others in ISAS Guide #3.)

2. a. Cognitive, Psychomotor, and Affective.

   b. (1) Affective
      (2) Cognitive
      (3) Affective
      (4) Cognitive
      (5) Psychomotor

3. b

4. a (How the objectives compete, facilitate, or have no interaction.)

5. a

6. Given alternatives, the first thing done is to determine the *variables* to consider. Each variable is *weighted*. (ISAS Guide #5.) A *value scale* is set up. *Each alternative* is compared to *each variable*, a *value* selected and *multiplied by the appropriate weight*. The *weighted scores* are *added* to determine *relative effectiveness*.

7. Personnel, equipment, supplies, and miscellaneous.

8. a

9. c

CLOSING NOTE

This lesson's role was to overview the general ISAS procedure and call your attention to some of the more important concepts of ISAS as a whole. In that your role in ISAS may not entail all of the procedures, we felt a general level of understanding is sufficient.

The guides and worksheets for the actual ISAS in your district will give more details.

ISAS GUIDE 1

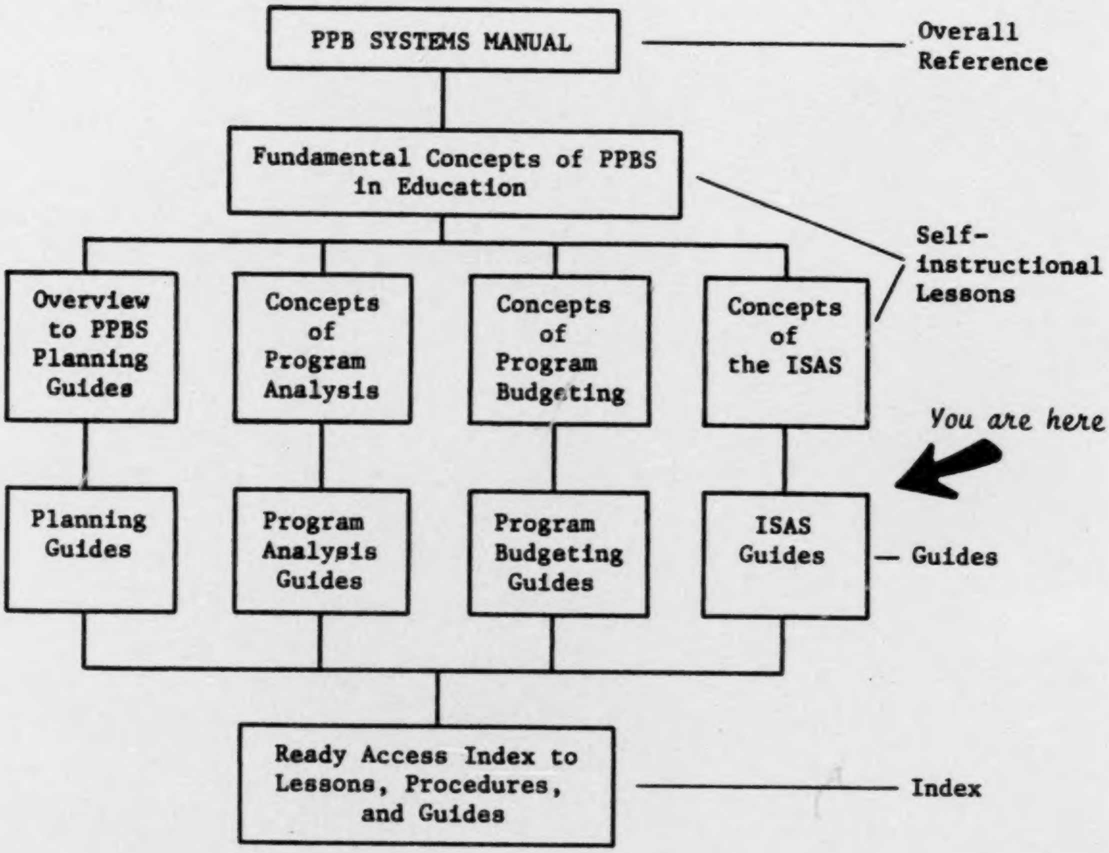
Identifying Appropriate Program Element

COMPONENT 1
Program Committee

COMPONENT 2
Program Element Coordinator

COMPONENT 3
Program Committee
Program Director
Educational Planning Council

WESTERN NEW YORK PPBS TRAINING PACKAGE


PPB SYSTEMS MANUAL
Overall Reference
Fundamental Concepts of PPBS in Education
Self-instructional Lessons
Overview to PPBS Planning Guides
Concepts of Program Analysis
Concepts of Program Budgeting
Concepts of the ISAS
You are here
Planning Guides
Program Analysis Guides
Program Budgeting Guides
ISAS Guides
Guides
Ready Access Index to Lessons, Procedures, and Guides
Index

PURPOSES OF THE GUIDES

This is one of seven *ISAS guides*, which correspond to the seven ISAS procedures (36-42) specified in the PPBS Manual. Their purpose is to *aid in the accomplishment of those procedures* by providing step-by-step guidance to the various roles involved. This guidance takes the form of instructions, diagrams, examples, checklists, worksheets, and samples, depending on the nature of the procedure being guided.

All ISAS guides are subdivided into various *components*, which are intended for use by *specific roles* working within the procedure. The guides and components are organized as follows:

ISAS GUIDE #	ISAS PROCEDURE #
1	36 - Identifying Appropriate Program Element Component 1 - Program Committee Component 2 - Program Element Coordinator Component 3 - Program Committee Program Director Educational Planning Council
2	37 - Organizing the ISAS Component 4 - Program Director Component 5 - ISAS Director
3	38 - Setting Sub-Program Element/Area Objectives Component 6 - ISAS Director Component 7 - ISAS Task Force Component 8 - Program Director
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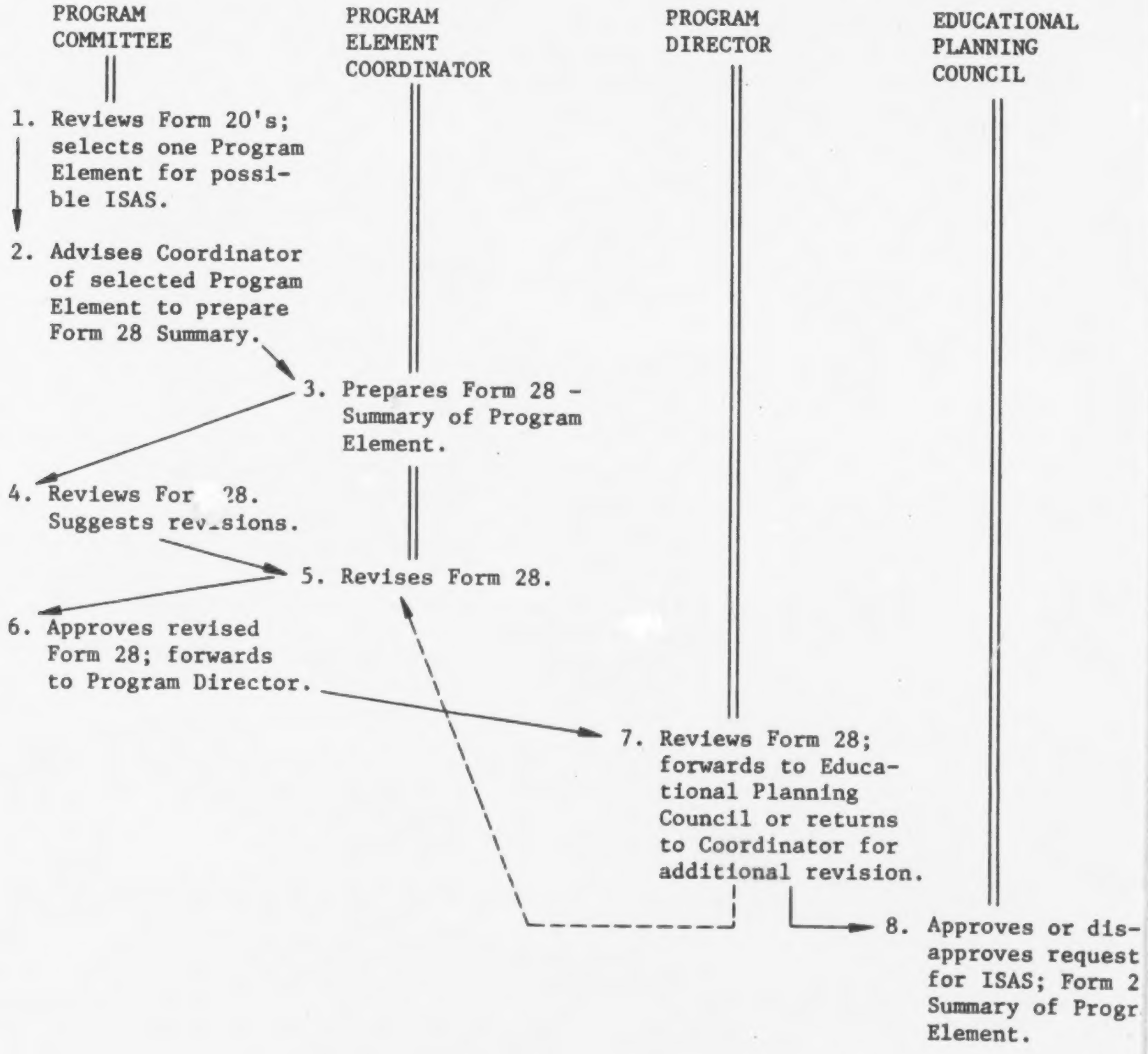
7	42 - Selecting an Alternative System for Implementation Component 18 - ISAS Director

Component and role are identified in the upper right-hand corner of the guide pages.

PROCEDURE 36: IDENTIFYING APPROPRIATE PROGRAM ELEMENT FOR CONDUCTING AN INSTRUCTIONAL SYSTEMS ANALYTICAL STUDY (ISAS)

Procedure 36, the actual start-up of an ISAS, is accomplished by the *Program Committee, Program Element Coordinator, Program Director,* and the *Educational Planning Council.* Each role performs specifically assigned tasks which combine to identify *one* Program Element for an ISAS.



1. Reviews Form 20's; selects one Program Element for possible ISAS.
2. Advises Coordinator of selected Program Element to prepare Form 28 Summary.
3. Prepares Form 28 - Summary of Program Element.
4. Reviews Form 28. Suggests revisions.
5. Revises Form 28.
6. Approves revised Form 28; forwards to Program Director.
7. Reviews Form 28; forwards to Educational Planning Council or returns to Coordinator for additional revision.
8. Approves or disapproves request for ISAS; Form 2 Summary of Progr Element.

WORKSHEET A - Program Element Review - Completed by PROGRAM COMMITTEE

Program Element Title: ______________________________

Program Element Coordinator: ______________________________

	(4)	(3)	(2)	(1)	SCORE
1. *Form 20 - Item 1A* Consistency of Program Element objectives with district priorities.					
2. *Form 20 - Item 1A* Impact of Program Element as indicated by criteria stated in objectives.					
3. *Form 20 - Item 2C* Program Element progress toward objectives to date.					
4. *Form 20 - Item 3B* Feasibility of Program Element alternatives considered for planning purposes.					
5. *Form 20 - Item 3C* Validity of rationale for selecting Program Element alternative implemented.					
6. *Form 20 - Item 4* Specificity and inclusiveness of multiyear recommendations.					
7. *Form 20 - Item 5A* Validity of data available for decision making and multiyear Program Element planning.					
8. *Form 20 - Item 5B* Validity of assumptions basic to Program Element decisions.					
9. *Form 20 - Item 5C* Certainty of decisions made in Program Element curricular-fiscal planning.					
	TOTAL SCORE				

WORKSHEET A GUIDE

Worksheet A is used by the Program Committee to review each Form 20 submitted by the various Program Element Coordinators to determine the Program Element *most in need* of an ISAS. It is a "computer worksheet," requiring the following steps of performance by each committee member:

1. Review the Form 20 being acted upon, *item by item.*
2. Select the *verbal indicator* which best describes how "good" or "bad" the Program Element is doing in each Form 20 item area.
3. Record the *numerical score* which corresponds to the verbal indicator selected in the SCORE column for each item.
4. *Total* the score for the Form 20 being rated on Worksheet A.

Worksheet A is to be completed by *each Program Committee member* for *each Form 20* being considered. Total committee scores for each Form 20 are computed after all have been reviewed. The Form 20 receiving the *lowest* committee score is the one most in need of an ISAS.

WORKSHEET A/*FORM 20*

Item 1/*Item 1A*

To determine the *degree of consistency* of the Program Element objectives to district priorities, you must be familiar with the latter. If you are not familiar with district priorities, request them from the Program Committee chairman.

Item 2/*Item 1A*

Impact of the Program Element under study is indicated by the *level of criterion performance* described in the objectives. A Program Element that attempts to achieve 90% of criteria by 90% of the students obviously has *more impact* than a Program Element requiring only 75% by 75% of the students.

Item 3/*Item 2C*

Progress toward objectives indicates effectiveness of the Program Element to date. The *closer* the Program Element is to achieving its objectives, the *higher* the verbal indicator that should be assigned.

What comments are entered as multiyear recommendations concerning the Program Element curricular-fiscal plan? The more specific and inclusive the recommendations, the higher the item score.

WORKSHEET A/*FORM 20* (Continued)

Item 4/*Item 3B*

The *more feasible* the alternatives considered for planning purposes, the better the Program Element selected. Realistic alternatives rate a high verbal indicator for the item on the worksheet.

Item 5/*Item 3C*

The *more valid* the rationale for selecting the Program Element alternative of choice, the higher the verbal indicator that should be assigned for this item on the worksheet.

Item 6/*Item 4*

What comments are entered as multiyear recommendations concerning the Program Element curricular-fiscal plan? The more specific and inclusive the recommendations, the higher the item score.

Item 7/*Item 5A*

How complete were the data used in decision making and multiyear planning? How valid are the data categories itemized? The more complete and valid the data, the higher the item score.

Item 8/*Item 5B*

What assumptions underlie the curricular-fiscal Program Element decisions? The more valid those assumptions, the higher the item score on Worksheet A.

Item 9/*Item 5C*

What uncertainties are described regarding Program Element C-F decisions? The lesser the uncertainty, the higher the item score that should be assigned.

- COMPLETE WORKSHEET A BY ENTERING THE TOTAL SCORE IN THE SPACE PROVIDED.
- WHEN EACH PROGRAM COMMITTEE MEMBER HAS COMPLETED WORKSHEET A FOR EACH PROGRAM ELEMENT (FORM 20) BEING CONSIDERED, COMPUTE TOTAL COMMITTEE SCORES FOR EACH PROGRAM ELEMENT.
- SELECT THE PROGRAM ELEMENT RECEIVING THE *LOWEST* PROGRAM COMMITTEE SCORE AS THE ONE *MOST IN NEED* OF AN ISAS.

FORM 28 GUIDE

FORM 28 - SUMMARY OF INSTRUCTIONAL SYSTEMS ANALYTICAL STUDY

Item 1

Describe the "problem" by identifying, in general terms at this point, the students exhibiting deficient performance and their major areas of deficiency.

Example: "Students in primary grades are not developing skills in reading comprehension and reading rate."

Item 2

State the specific location within the district that you recommend for the ISAS.

Example: "West Essex Elementary Schools - Grades 1 through 3."

Document your reasons for recommending the location.

Item 3

Describe how the problem or deficiency identified in Item 1 contributes to a broader district-level problem. How does the deficient performer in this Program Element fit into the picture of identified district needs?

Example: "40% of the 4th Grade students in the district rank below the percentile norm on the Reading portion of the annual standardized testing program."

Item 4

Describe the group identified in Item 1 more specifically. Include all necessary identifying characteristics: total number, age, sex, IQ or achievement level, etc.

Example: "550 3rd Grade students in remedial reading programs -- 350 male, 200 female, from 8 to 11 years old, ranking in lower 20% of standardized reading test scores.

Item 5

What is criterion performance in the specified areas? If a problem solution is effective, what will be the resultant levels of performance by the target population?

Example: "By the end of the third year, 90% of the 7th Grade students will score at or above state and national norms on the Mathematics section of the annual standardized tests."

Item 6

List, by category, the kinds of data required to conduct an ISAS on the Program Element. Possible categories include socio-economic data, achievement test scores, physiological data (especially sight and hearing checks), IQ scores, teacher anecdotal records, etc.

Specify the data categories to which you have immediate access.

Item 7

Describe a procedure for establishing/obtaining data in the categories not listed as available in Item 6.

Item 8

List all potential major barriers to the ISAS, or to implementation of the proposed Program Element. What are the constraints on the district, community, school, or student level? It may be helpful to seek constraints in these areas: financial, legal, political, attitudinal, time, organizational.

Item 9

List other district or internal/external school programs whose operation seems likely to be directly affected by the implementation of the proposed Program Element. Describe the populations of each potentially affected program, including necessary identifying characteristics.

Example: If the proposed Program Element calls for additional remedial reading classes for the 350 males in the target population to be substituted for their Physical Education period, the *program affected* is Boys' Physical Education-3rd Grade. The *secondary population* affected is the remaining 200 boys currently in the Physical Education classes.

Item 10

Representatives of programs likely to be affected by the proposed Program Element should be included in the ISAS if possible. List those representatives by name and title, and indicate how they would be involved in the ISAS.

Item 11

List the anticipated costs of personnel and all other costs related to the ISAS. Personnel costs are computed by multiplying the *rate per role* by the *time requirements* of the ISAS.

Example:	5 reading teachers @ $700/month	- one month each	= $3,500
	Reading consultant @ $200/day	- 5 days	= 1,000

FORM 28

SUMMARY OF PROPOSED ISAS

Program Element

Program ________

District ________

Name ________

1. Major Areas of Deficiency	2. Recommended ISAS Location; Reasons for Recommendation	3. District Implicati

SED ISAS

Program Element ____________________

Program ____________________

District ____________________

Name ____________________ Date __________

Deficiency	2. Recommended ISAS Location; Reasons for Recommendation	3. District Implications	4. Target Population

5. Desired Outcomes	6. Data Required; Availability	7. Plan to Acquire Unavailable Data

tcomes	6. Data Required; Availability	7. Plan to Acquire Unavailable Data	8. Constraints

9. Other Program Affected	10. Role of Representatives of Affected Programs	11. Cost/Time	

fected	10. Role of Representatives of Affected Programs	11. Cost/Time	12. District Benefits

Item 11 (Continued)

Other costs should include any special equipment, procedures, or resources that the ISAS requires.

Document the *calendar time* that you estimate as necessary to complete the ISAS. Allow for periodic measure of effectiveness over the multiyear operation of the proposed Program Element.

Item 12

List all possible benefits to the district that might result from the conducting of the ISAS. Refer to Item 4 of Form 28 for a start -- describe how the ISAS will improve performance in a district priority area. How will the discrete products of the ISAS, such as the data collected or personnel experience, provide benefits to the district?

CAREFULLY REVIEW YOUR COMPLETED FORM 28. CHECK EACH ITEM FOR CLARITY OF EXPRESSION, COMPLETENESS, ACCURACY OF CONTENT, AND SPECIFICITY. REVISE AS NEEDED. THE FINAL DRAFT OF FORM 28 IS TO BE SUBMITTED TO THE PROGRAM COMMITTEE FOR REVIEW.

COMPONENT 3
- Program Committee
- Program Director
- Ed. Planning Council

REVIEW CHECKLIST FOR FORM 28

Review performed by:

☐ Program Committee
☐ Program Director
☐ Educational Planning Council

Item	Criteria	Acceptable	Must Revise	Suggested Revisions
1	Population, deficient performance, and performance areas identified.			
2	Specific location for ISAS recommended is consistent with Item 1. Reasons for recommendation listed.			
3	Relationship of specific deficiency to district priorities clearly described.			
4	Description of target population sufficiently specific and limiting.			
5	Desired outcomes reasonable, consistent with district priorities.			
6	All categories of needed data specified. All available data listed.			
7	Acquisition of unavailable required data provided for.			
8	All potential constraints listed.			
9	All other district/school programs possibly affected listed; secondary populations sufficiently described.			

Turn page for 10-12.

(Item)	(Criteria)	(Acceptable)	(Must Revise)	(Suggested Revisions)
10	Plan to involve representatives of affected programs sufficiently comprehensive.			
11	Cost breakdown complete and accurate. Time estimate reasonable within available manpower and budget constraints.			
12	All benefits clearly related to district needs/priorities; all possible benefits listed.			

Comments/Revisions: ____________________

INSTRUCTIONS TO REVIEWER

IF YOU ARE A -	AND IF -	THEN -
Program Committee	You have suggested revisions to the Form 28.	Return the Form 28 and this checklist to the Program Element Coordinator who originated the Form 28.
	There are no revisions suggested.	Forward the Form 28 and this checklist to the appropriate Program Director.
Program Director	You have suggested revisions to the Form 28.	Return the Form 28 and this checklist to the Program Element Coordinator.
	There are no revisions suggested.	Forward to the Educational Planning Council.
Educational Planning Council	You approve the Form 28.	Inform the appropriate Program Director to continue the ISAS.
	You disapprove the Form 28.	Inform the appropriate Program Director to either resubmit at a later date or continue the ISAS as possible at the Program Element level.

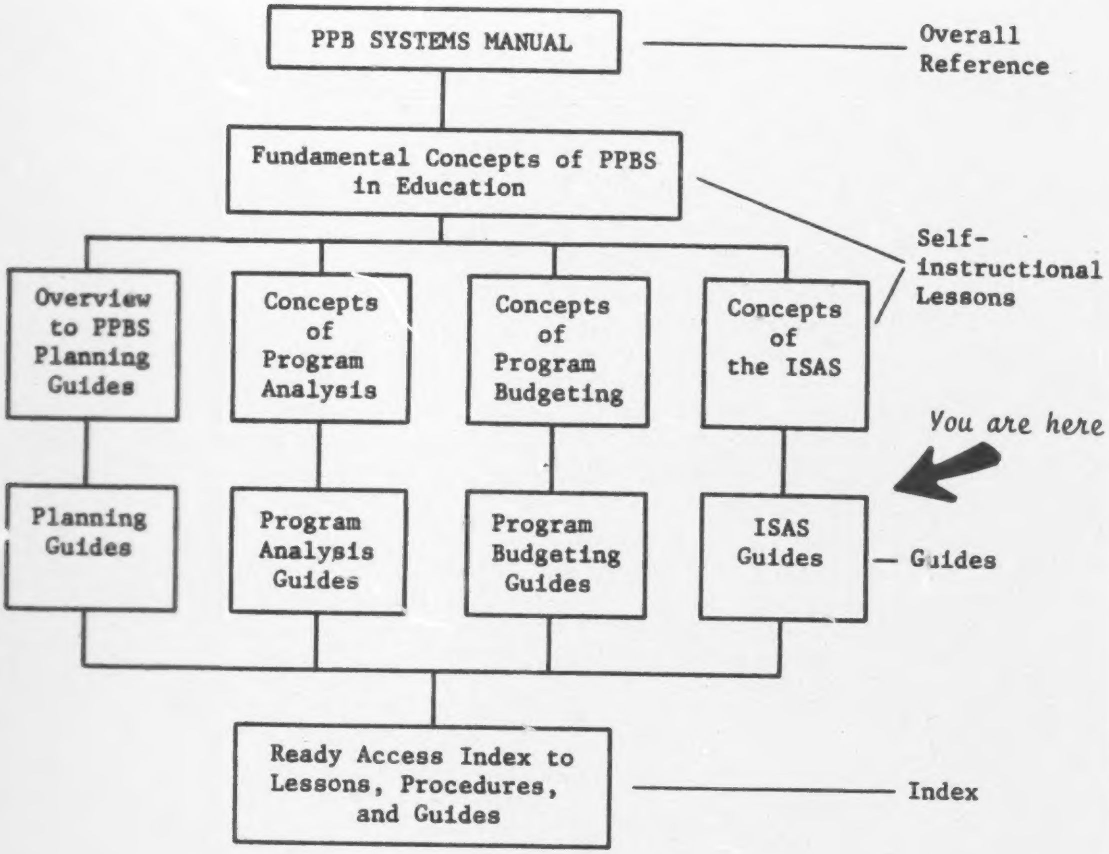
ISAS GUIDE 2

Organizing the ISAS

COMPONENT 4
Program Director

COMPONENT 5
ISAS Director

WESTERN NEW YORK PPBS TRAINING PACKAGE


PPB SYSTEMS MANUAL
Overall Reference
Fundamental Concepts of PPBS in Education
Self-instructional Lessons
Overview to PPBS Planning Guides
Concepts of Program Analysis
Concepts of Program Budgeting
Concepts of the ISAS
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PURPOSES OF THE GUIDES

This is one of seven *ISAS guides*, which correspond to the seven ISAS procedures (36-42) specified in the PPBS Manual. Their purpose is to *aid in the accomplishment of those procedures* by providing step-by-step guidance to the various roles involved. This guidance takes the form of instructions, diagrams, examples, checklists, worksheets, and samples, depending on the nature of the procedure being guided.

All ISAS guides are subdivided into various *components*, which are intended for use by *specific roles* working within the procedure. The guides and components are organized as follows:

ISAS GUIDE #	ISAS PROCEDURE #
1	36 - Identifying Appropriate Program Element Component 1 - Program Committee Component 2 - Program Element Coordinator Component 3 - Program Committee Program Director Educational Planning Council
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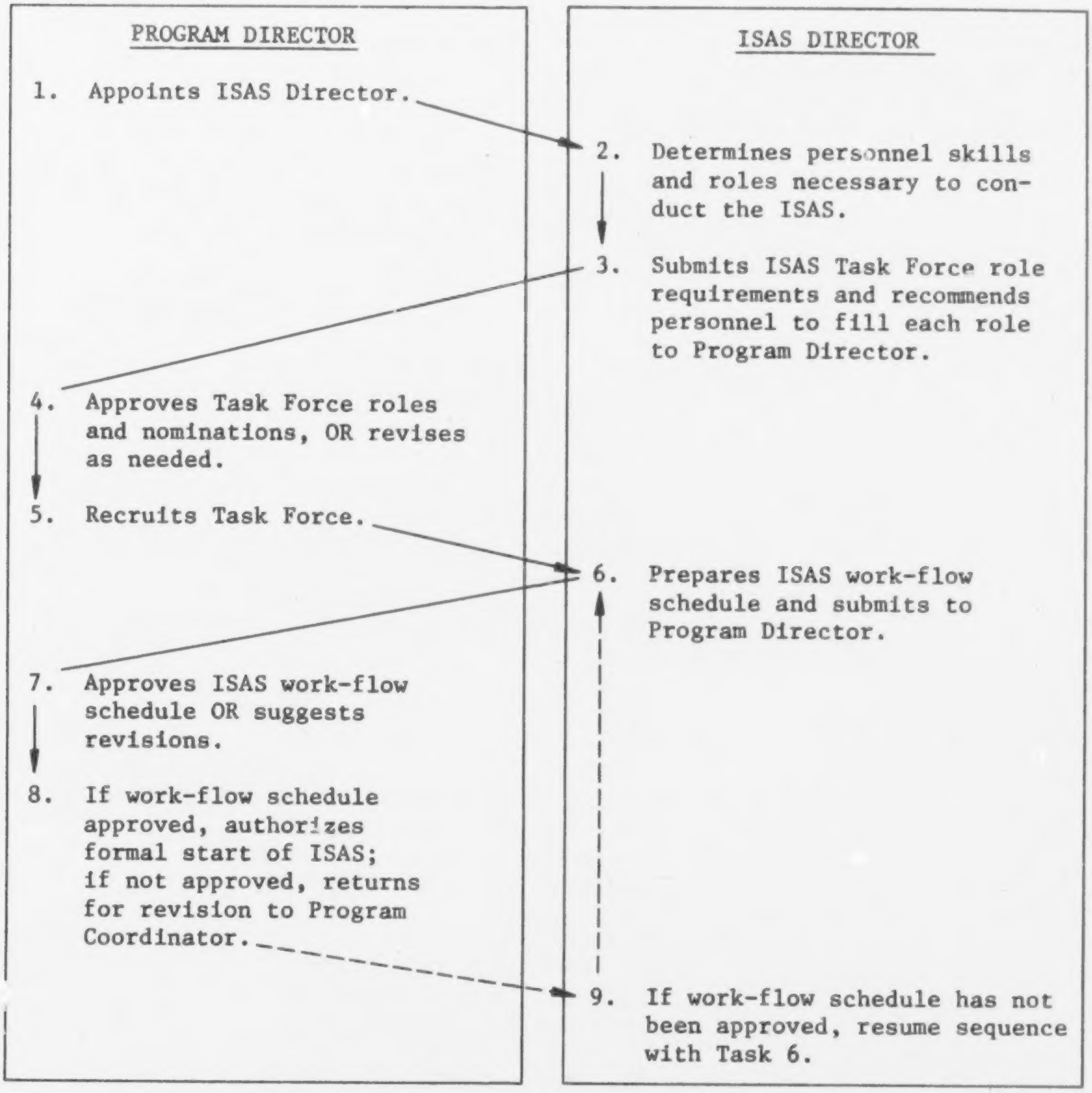
Component and role are identified in the upper right-hand corner of the guide pages.

PROCEDURE 37: ORGANIZING THE STUDY

Upon receiving notification from the Educational Planning Council to continue the proposed ISAS, the Program Director and the appointed ISAS Director interact to perform the following tasks. Task sequence is indicated by the task number.



PROGRAM DIRECTOR

1. Appoints ISAS Director.
4. Approves Task Force roles and nominations, OR revises as needed.
5. Recruits Task Force.
7. Approves ISAS work-flow schedule OR suggests revisions.
8. If work-flow schedule approved, authorizes formal start of ISAS; if not approved, returns for revision to Program Coordinator.

ISAS DIRECTOR

2. Determines personnel skills and roles necessary to conduct the ISAS.
3. Submits ISAS Task Force role requirements and recommends personnel to fill each role to Program Director.
6. Prepares ISAS work-flow schedule and submits to Program Director.
9. If work-flow schedule has not been approved, resume sequence with Task 6.

This guide will detail the steps for accomplishing the tasks *by role*, even though they are performed in the sequence depicted above.

PROCEDURE 37: ORGANIZING THE STUDY

PROGRAM DIRECTOR'S ROLE --

Task 1: Appoint the ISAS Director

If at all possible, the ISAS Director appointee should be the Program Element Coordinator who was responsible for preparing the original Form 20 - *Program Element Summary*, and Form 28 - *Summary of Proposed ISAS.*

IF IT IS NOT POSSIBLE TO APPOINT THE PROGRAM ELEMENT COORDINATOR, then the Program Director must establish a list of possible candidates who:

1. Have working knowledge of the Program Element to be subjected to the ISAS.
2. Have working knowledge of other district and school programs likely to be affected by the Program Element.
3. Are available to serve as ISAS Director.

Having established a list of potential candidates, the Program Director must then select the candidate who best fulfills the following criteria:

- Management Ability

  Experience in directing small group efforts to achievement of purposes within specified time.

- Leadership Ability

  Record of coordinating the efforts of several individual roles to criterion level without "doing the work."

- Task Allegiance

  Record of meeting specified deadlines with products scheduled for completion.

- Communications Ability

  Experience in communicating verbally and in writing the inputs necessary for role function -- e.g., assignments, revisions, data summaries, etc.

After selecting an ISAS Director, the Program Director must *notify* him in a written memo, and assign him *Tasks 2 and 3* of Procedure 37.

Task 4: Approve Suggested ISAS Task Force Composition

Upon receiving a role/skills description and role nominations for an ISAS Task Force from the ISAS Director, the Program Director must:

1. Approve or revise the role/skills description.
2. Approve or identify alternatives to the role nominations.

To accomplish #1, the Program Director must review the Task Force roles/skills descriptions and determine if:

- *All skills required* by the ISAS are listed under each category -- general administrative, clerical, subject matter, and special professional.
- *The number of personnel* suggested per role seems reasonable in terms of the ISAS.
- Any roles/skills required *are not described.*

The Program Director should revise the Task Force roles/skills descriptions until the above points are satisfied.

Item 2, above, is best accomplished by considering each role nomination against the skills required by that role. Does the person suggested to fill the role possess the skills required by the role? District and school administrators can be contacted in cases of uncertainty.

- IF the role nominee possesses the required role skills,
  THEN the Program Director should *approve* the nomination.
- IF the role nominee does not possess the required role skills,
  THEN the Program Director must nominate an alternate who does.

Task 5: Recruit the ISAS Task Force

When Task 4 (Approve Suggested Task Force Composition) has been accomplished, the Program Director must recruit the ISAS Task Force.

This can best be done by means of a memo to each ISAS Task Force nominee in the following format:

November 29, 1971

TO: F. E. Ambrosie

FROM: J. G. Murphy

SUBJECT: Nomination to ISAS Task Force

This will serve to inform you of your nomination to serve on an Instructional Systems Analytical Study to be conducted on the Reading Comprehension program in Grades 1-3 in the West Seneca Elementary Schools. Should you agree to serve on the Task Force, your role will be that of Evaluation Specialist. The ISAS is to commence as soon as the Task Force is fully staffed and will be completed in June of 1972. Semiannual follow-up testing will occur through 1975.

Attached is a Form 28 - Summary of Proposed ISAS, and a description of the role of Evaluation Specialist. Please indicate below whether you will participate on the Task Force in the role specified.

I ☐ will / ☐ will not* be able to participate on the ISAS Task Force in the role specified.

____
(signature)

*If unable to serve, please provide the name of an alternate who may be able to fill the role described.

____
(Alternate's name -- School/District -- Address)

PROGRAM DIRECTOR'S ROLE -- (Continued)

Task 7: Review ISAS Work-Flow Schedule

The ISAS Director will complete *Worksheet B*, a Task Force work-flow schedule, and submit it to you for approval. Carefully review the dates listed in the TARGET DATE column and any comments entered in the NOTES/CONTINGENCIES column. Enter any comments that you may have concerning a particular task in the NOTES column.

After reviewing Worksheet B:

IF	THEN
No revision in target dates is required.	Proceed to Task 8.
Some revision in target dates is required.	Return Worksheet B to ISAS Director with suggested revisions.
Special notes/contingencies for certain tasks are not entered on Worksheet B.	Enter in NOTES/CONTINGENCIES column and proceed to Task 8.

Task 8: Authorize Start of the ISAS

The Program Director authorizes the start of the ISAS when the work-flow schedule meets his approval by:

1. Signing Worksheet B -- ISAS Task Force Work-Flow Schedule
2. Verbally informing the ISAS Director of approval.
3. Informing all Task Force members (including the ISAS Director) by means of a written memo and attached signed copy of the work-flow schedule.

The written memo authorizing the start of the ISAS should state the *specific title of the study*, the *name of the ISAS Director*, the *time frame* of the study, and the *effective start date*.

PROCEDURE 37: ORGANIZING THE STUDY

ISAS DIRECTOR'S ROLE --

To accomplish Tasks 2 and 3, the ISAS Director must perform these steps:

Task 2: Determine Personnel Skills and Roles Necessary to Conduct ISAS

1. Review Form 28, Items 1, 2, 7, 9, 12, and 13.
2. Generate Task Force roles by listing all personnel skills required by the ISAS in the following categories:
    - General administrative
    - Clerical
    - Subject matter
    - Special professional (consultants, specialists, etc. not available from the district)
    - Other (all other skills required by the ISAS not already listed)
3. Estimate the number of personnel required to accomplish each role within the scope of the proposed ISAS.

Task 3: Recommend Personnel for ISAS Task Force to Program Director

1. Survey available staff and special professional personnel in terms of skills required for each role.
2. Nominate an available staff member or special professional to fill each Task Force role.
3. Submit role/skill requirements and Task Force role nominations to Program Director.

Obviously, Tasks 2 and 3 are vital to the ISAS process in that they afford the ISAS Director the opportunity to "pick his team." Decisions made at this point are critical to the study, and the ISAS Director should make certain that *all required roles/skills have been specified.* His role nominations should reflect personnel with the skills required. The ISAS Director should be satisfied on both counts *before* submitting his role descriptions and nominations to the Program Director.

Task 6: Prepare ISAS Work-Flow Schedule -- Worksheet B

Worksheet B provides a vehicle for the ISAS Director to schedule Task Force activities, products, deadlines, and decision points by role for the entire period that the ISAS will be conducted.

WORKSHEET B GUIDE

Item 1: Enter the ISAS title of the Program Element being studied by the Task Force.

Item 2: Enter the name of the ISAS Director, Program Director, and all Task Force members. For each member of the Task Force, enter the role filled.

Example: R. B. Wentworth -- Subject-Matter Specialist
T. J. Litoff -- Clerical Coordinator

Item 3: Enter the date the ISAS was started and the date it must be completed.

Item 4:

- The critical *tasks* in conducting an ISAS are listed in the first column in performance sequence. The role responsible for performing or coordinating performance of the tasks is indicated in the second column.
- STARTING WITH THE LAST TASK listed on Worksheet B, indicate target completion dates in column three. The target date for the last task would be the date that the ISAS must be completed (see Item 3). Work *backwards* through the task list establishing target dates until you arrive at the first task listed.
- Read through the task list again and enter any notes of contingencies that any of the tasks suggest at the moment. Use the NOTES/CONTINGENCIES column as a "diary" as the work progresses. As each task is begun, enter the START DATE in the column provided. As each task is completed, enter the date of completion in the ACTUAL DATE column, and any comments in the NOTES column.

BE CERTAIN THAT MINUTES OF ALL ISAS TASK FORCE MEETINGS ARE KEPT.

- Upon completing Worksheet B (ISAS Work-Flow Schedule), submit it to the Program Director for sign-off approval. Revise as he suggests until approval is obtained.

WORKSHEET B: ISAS TASK FORCE WORK-FLOW SCHEDULE

1. Program Element under study:

2. Task Force Personnel:

ISAS Director:

Program Director:

3. Date ISAS begun:

Date ISAS to be completed:

4.

TASKS	ROLES	DATES			NOTES/CONTINGENCIES
		START	TARGET	ACTUAL	
Form 28 reviewed	ISAS Director				
Obtain input data for sub-program element objectives	ISAS Director				
Summarize input data	ISAS Director				
Review input data summary	ISAS Task Force				
Draft sub-program element objectives	ISAS Task Force				
Review sub-program element objectives	Program Director				
Determine present level of performance	Prog. Element Coordinator				
Estimate difficulty of achievement	ISAS Task Force				
Generate alternative Program Element Systems	ISAS Task Force				

Continuation

TASKS	ROLES	DATES			NOTES/CONTINGENCIES
		START	TARGET	ACTUAL	
Construct Form 29	ISAS Director				
Review Form 29	ISAS Task Force				
Establish effectiveness variables; weight effectiveness variables.	ISAS Task Force				
Construct Form 30 for each alternative system	Panel of experts				
Construct summary Form 30-A	ISAS Director				
Review Form 29	ISAS Director				
Plan cost projection for each alternative	ISAS Director				
Construct Form 31 for each alternative	ISAS Director				
Review Form 31's	ISAS Task Force				
Construct Form 32 for each alternative	School Bus. Administrator				
Construct Form 33 for each alternative	School Bus. Administrator				
Construct Form 34	ISAS Director				
Construct C/E graphs	ISAS Director				
Select Program Element alternative to be implemented	ISAS Task Force				
Review alternative selected	Program Director				
Review alternative selected	Educational Plan. Council				

ISAS Work-Flow Schedule approved: ______________________ ____________

Program Director Date

ISAS GUIDE 3

Setting Sub-Program Element/Area Objectives

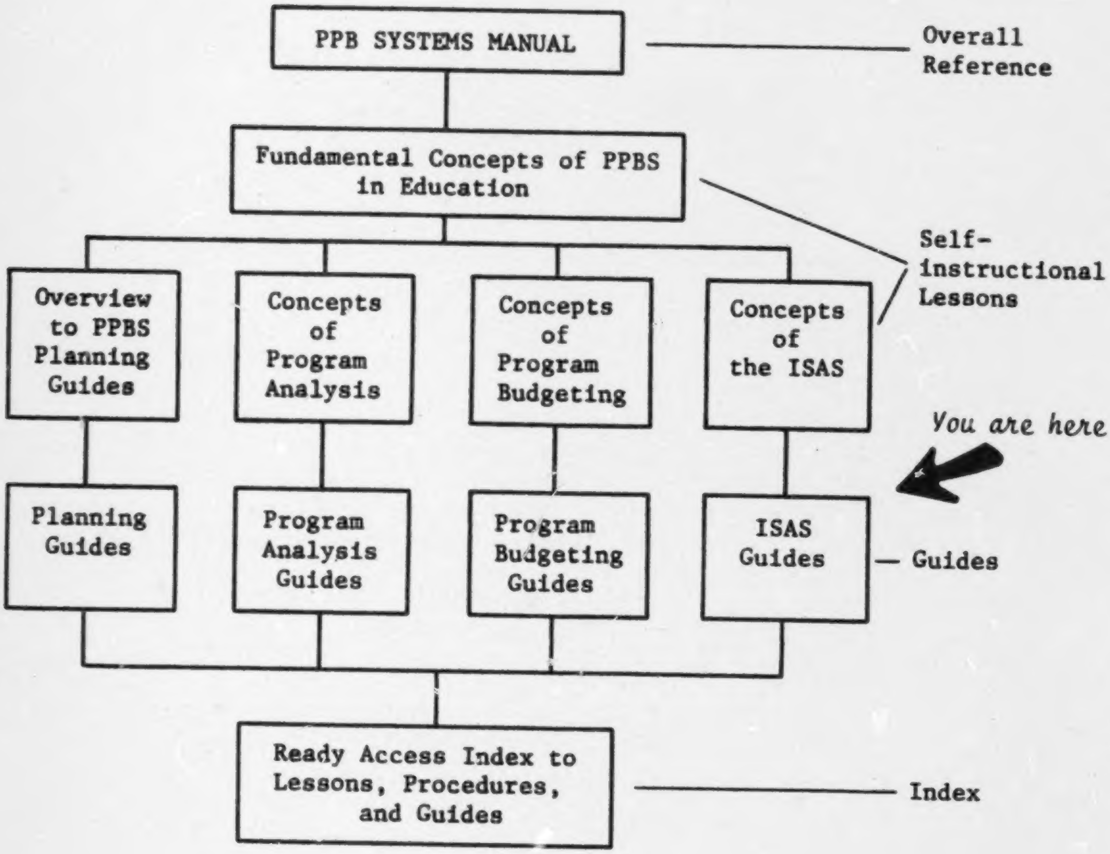
COMPONENT 6
ISAS Director

COMPONENT 7
ISAS Task Force

COMPONENT 8
Program Director

Guide 3

WESTERN NEW YORK PPBS TRAINING PACKAGE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Overall Reference
Fundamental Concepts of PPBS in Education
Self-instructional Lessons
Overview to PPBS Planning Guides
Concepts of Program Analysis
Concepts of Program Budgeting
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Component and role are identified in the upper right-hand corner of the guide pages.

ISAS PROCEDURE 38: SETTING SUB-PROGRAM ELEMENT OBJECTIVES FOR THE ALTERNATIVE SYSTEMS TO BE GENERATED

Procedure 38 is accomplished by the *ISAS Director, ISAS Task Force,* and *Program Director.* Each role performs specifically assigned tasks which combine to produce a final statement of *Sub-Program Element/Area Objectives* for the Program Element that is being studied in the ISAS.

ISAS DIRECTOR

1. Collects input data required for setting objectives.
2. Provides indexed summary packet of input data to ISAS Task Force.

ISAS TASK FORCE

3. Analyzes input data.
4. Drafts Sub-Program Element Objectives.
5. Drafts Sub-Program Element Area Objectives.
6. Classifies objectives as psychomotor, cognitive, or affective.
7. Reviews draft of objectives.
8. Writes final statement of Sub-Program Element/Area Objectives.

PROGRAM DIRECTOR

9. Reviews final statement of objectives.
10. Approves and returns to ISAS Director; disapproves and returns to ISAS Task Force with suggested revisions.

ISAS PROCEDURE 38: SETTING SUB-PROGRAM ELEMENT OBJECTIVES FOR THE ALTERNATIVE SYSTEMS TO BE GENERATED

The ISAS Director's tasks in Procedure 38 are basic to the eventual drafting of Sub-Program Element Objectives for the alternative systems that are to be generated later in Procedure 39. The ISAS Director is charged with:

1. *Identifying* the Sub-Program Elements and the areas of performance that each includes in the Program Element under study.

Example: If the Program Element is -- Business Education Courses in Grades 9-12,

Then the Sub-Program Elements are -- General Business Practice - Grade 9

-- Typing and Shorthand - Grade 10

Business Mathematics - Grade 11

Business Machines - Grade 12

Office Practice - Grade 12

And Sub-Program Element Areas are -- Those areas of performance that comprise each Sub-Program Element. Under *Typing*, for example, the areas of performance include:

- Keyboard familiarization
- Typewriter set-up
- Typing speed
- Typing accuracy
  etc.

2. *Collecting* required input data for the drafting of Sub-Program Element Objectives to the "area" level.

3. *Indexing* the collected data to allow the ISAS Task Force to respond to it more efficiently.

The *Data Collection Checklist* and *Worksheet C* are designed to aid the ISAS Director in accomplishing these tasks.

NOTE: Don't delay ISAS to wait for data. Use what is available or can be quickly obtained. Notify Program Director of missing data.

DATA COLLECTION CHECKLIST

ISAS Title and Number ______________________________

ISAS Director ____________________ Date Data Collection Begun ____________

The following types of data are helpful *illustrative* input for Sub-Program Element objectives. Use this checklist to document data collection, indicating that each required type of data either has been obtained, or the plans for obtaining it.

1. Data Category	2. Description/Source	3. Obtained ✓	3. Obtained Date	4. Plans to Acquire Unobtained Data
Sub-Program Elements and Areas	All discrete component segments of the Program Element under study and the performance areas that each includes./ ISAS Director, Program Element Coordinator (see example on preceding page).			
Current Achievement Level	Present level of performance in the Sub-Program Element Areas./ District and school standardized test data, teacher records, report cards, etc.			
Demographic Data Relative to Target Population	Vital statistics as to density, dispersal, etc. of community population; socio-economic data./ NYS Statistical Yearbook, U.S. Census, city and town clerks, district and school socio-economic surveys, etc.			
Usable Community Resources	Facilities, personnel, programs, funds that may be employed in implementing the Program Element including but not limited to parks, factory tours, volunteer agencies, local government employees and facilities./ Chamber of Commerce, city and town clerks, local news media.			
Current Staff Competency	Level and up-to-dateness of teacher training and experience in Program Element Area./ District and school personnel files, In-Service records, teacher survey.			
District Philosophy in Program Element Area	District goals, purposes, and objectives in the Program Element Area./ District Superintendent.			
District Learning Theory Rationale	Brief general statement of district philosophy on learning theory in the Program Element Area./ District Superintendent.			

When the ISAS Director has collected the required input data, it must be provided for use by the ISAS Task Force in generating *Sub-Program Element* and *Sub-Program Element Area* objectives.

This involves:

- Producing sufficient copies of the various data for distribution to each member of the ISAS Task Force.
- Indexing the packages of data to be distributed by category and source to make it easier for the members of the ISAS Task Force to use.

Worksheet C, *Data Package Index,* on the following page, provides an efficient vehicle for accomplishing these tasks.

NOTE: Worksheet C is completed by the ISAS Director *after* he has collected the required input data, and *prior* to distribution of packages of that data to ISAS Task Force members.

ISAS INPUT

WORKSHEET C - DATA PACKAGE INDEX

(To be attached to each package of input data distributed to ISAS Task Force members.)

1. *Identification:*

Program Element: ______________________________ Date: ________

ISAS Director: ______________________________

2. *Contents:*

Documents in contents sequence

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________

3. *Data Index:*

Category of Data	Document	Page Location
Current Achievement Level		
Demographic Data		
Usable Community Resources		
Current Staff Competency		
District Philosophy		
District Learning Theory		
Other: ______________		

OBJECTIVES GUIDE

Using the input data collected by the ISAS Director, and indexed on Worksheet C, the ISAS Task Force is charged with:

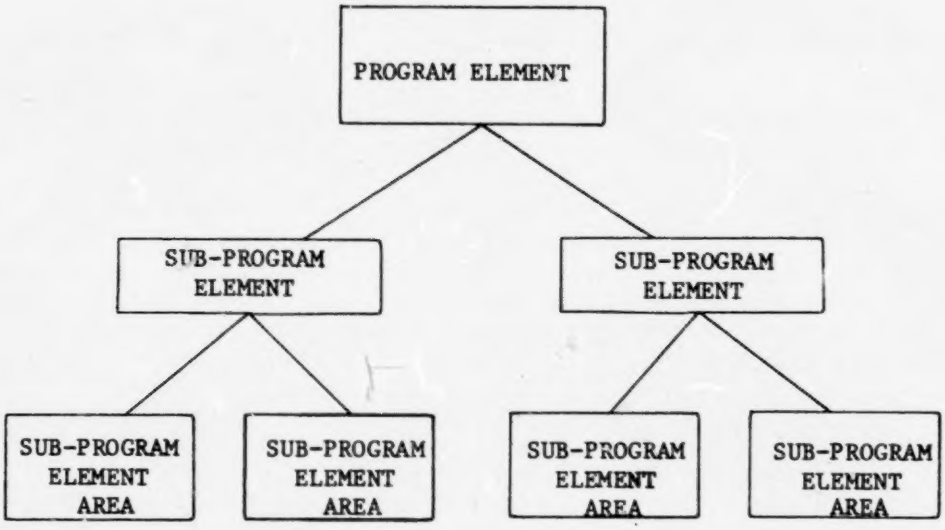
1. Narrowing the area of concern of the ISAS by selecting those Sub-Program Elements listed on Worksheet C that are not "working" -- those where student performance does not meet desired criteria.

2. Writing *objectives* for the Sub-Program Elements selected for further ISAS study, subsequently referred to as *Sub-Program Element Objectives.*

3. Writing objectives for the performance areas included in each Sub-Program Element. These will be component objectives, subsequently referred to as *Sub-Program Element Objectives,* which combine to total the objectives of the Sub-Program Element described in #2 above.

4. Classifying the objectives produced as either psychomotor, affective, or cognitive.

Schematically, the Program Element hierarchy looks like this:


PROGRAM ELEMENT
SUB-PROGRAM ELEMENT
SUB-PROGRAM ELEMENT
SUB-PROGRAM ELEMENT AREA
SUB-PROGRAM ELEMENT AREA
SUB-PROGRAM ELEMENT AREA
SUB-PROGRAM ELEMENT AREA

An example:

IF the Program Element is:	THEN Sub-Program Elements include:	AND Sub-Program Element Areas include:
Business Education, Grades 9-12	Business Mathematics, Grade 10	- Simple and Compound Interest - Cash Discount
	Office Practice, Grade 12	- Mail Handling - Telephone Techniques

Sample objectives:

Program Element Objective: "X% of the graduating Business Education students will meet prevailing job placement criteria in general secretarial skills."

Sub-Program Element Objective: "Upon completion of Business Mathematics in Grade 10, the student will exhibit mastery of the specified arithmetic operations by scoring X or above on the final examination."

Sub-Program Element Area Objective: "Given a tax schedule and gross income data for a hypothetical business, the student will be able to compute correct Federal and state income tax payments in not more than one hour."

Given a Program Element broken down into its component Sub-Program Elements and Sub-Program Element Areas (Worksheet C), plus input data on the student population, community, school staff, and district philosophy, the ISAS Task Force is charged with drafting Sub-Program Element and Sub-Program Element Area Objectives which specify the performance and criteria required to improve the Program Element.

Obviously, the *Program Element Objectives* are written first, and then their component *Sub-Program Element Area Objectives* are written. The number of objectives written in each category will depend on the nature of the Program Element under study. In some instances, all Sub-Program Elements will be shown deficient; in others, as few as one Sub-Program Element may be selected for an ISAS. The remainder of this guide presents a general set of guidelines and a model for writing and classifying Sub-Program Element/Area Objectives which should prove helpful no matter what the Program Element.

DRAFTING SUB-PROGRAM ELEMENT AND SUB-PROGRAM ELEMENT AREA OBJECTIVES

Input required for the ISAS Task Force to draft Sub-Program Element Objectives includes the following documents:

INPUT	SOURCE
• Form 20 for the Program Element under study	Program Director
• Form 28 for the Program Element under study	Program Element Coordinator
• Worksheet C for the Program Element under study	ISAS Director

> The ISAS Task Force should make certain that all required input is on hand prior to attempting any subsequent tasks.

SUB-PROGRAM ELEMENT OBJECTIVES

GETTING ORGANIZED

Before the ISAS Task Force begins the actual drafting of Sub-Program Element Objectives, or even analyzes the input data provided by the ISAS Director, it should organize the work to be done by *Sub-Program Element Area* and Level. This allows quick determination of what is to be produced in the various areas, and allows for dividing the work among Task Force members based on their knowledge, capabilities, and interests in the various Sub-Program Element Areas.

It is not the purpose of this guide to prescribe how this organization should be done. One useful model that was generated in the developmental testing of these materials (Math ISAS Task Force, West Seneca Central School) is presented below as an illustration of organization. The Program under study was *middle school mathematics*.

ISAS ORGANIZATIONAL MATRIX

		Sub-Program Element Areas					
		Number and Numeration	Sets	Operations of Whole Numbers	Operations of Fractions[1]	Geometry and Measurement[2]	Translations[3]
Levels	Grade 8						
	Grade 7						
	Grade 6						

---

[1] Decimals, percentages, ratio and proportion, trigonometry.

[2] Graphs, coordinated geometry, metric system.

[3] Algebra, problem solving, equations, probability, statistics, logic.

ANALYZING THE INPUT DATA - SUB-PROGRAM ELEMENT LEVEL

Sub-Program Element Objectives, and their component *Area* Objectives, are to be drafted for those Sub-Program Elements selected from the listing on Worksheet C. The ISAS Task Force limits the domain, or narrows the area of concern, at this point, by selecting those Sub-Program Elements that are not "working" -- not resulting in achievement of the Program Element Objectives. Depending on the specific situation, objectives could be required for all Sub-Program Elements and Areas, or for as few as one Sub-Program Element and its Areas. The ISAS Task Force should focus on those Sub-Program Elements and Areas where the current level of achievement is not acceptable.

For each Sub-Program Element/Area identified, the input data is analyzed to specify the following:

- Target Population
- Desired Terminal Behavior
- Givens and Conditions of Performance
- Performance Criteria
- Performance Limits.

Remember that Sub-Program Element Objectives are the components which make up Program Element Objectives. The number of Sub-Program Element Objectives will depend on the area of deficiency being analyzed.

Using the indicated document references, list the following:

Sub-Program Element/Area

You will find these specified in the Data Summary Worksheet - Item 1, Form 28 - Item 1, and Form 20 - Item 12.

Example: "First Grade student scores on annual standardized Language Arts test sections consistently fall below national and state norms."

Begin by listing those Sub-Program Elements and their component Areas on which the ISAS will focus.

For each Sub-Program Element and Sub-Program Element Area listed, specify the following:

Target Population

Who is exhibiting the deficient performance in the area being considered? Refer to the Form 28 - Item 5.

Example: "350 First Grade students in Language Arts classes -- 190 male, 160 female, from 6 to 8 years of age, with an IQ range from 90 to 120."

Desired Terminal Behavior

What *specific* performance is required of the target population within the area of deficiency? See Form 28 - Items 1 and 6.

Example: " ... students will meet or exceed national and state norms on the Language Arts sections of annual standardized tests."

Givens and Conditions

What tools, materials, supplies are used by the students in performing the desired behavior? What is the performance environment? Refer to Form 20 - Item 3.

Example: "In our Language Arts example, the givens and conditions can be assumed to be a test booklet, answer sheet, and pencil in a grade-level classroom testing situation."

In other subject-matter areas, givens and conditions *cannot* be assumed. Some examples of givens that must be stated ...

"Given a timing light and standard set of automotive tools ... "

"Given a compound of unspecified elements ... "

"Given a dictation tape, playback unit, and standard electric typewriter ... "

"Given a list of prefixes ... "

If there is any doubt as to whether or not the givens and conditions of performance need to be stated, state them.

Performance Criteria

What measures are to be held up against student performance? Generally, the criteria categories of *time/rate, completeness,* and *accuracy* apply. See Form 20 - Items 2 and 5.

Example: Time/Rate Criteria:

" ... at the end of Grade 6."

" ... by the end of the first semester."

" ... by June, 1975."

" ... 12 reports per year."

" ... 40 words per minute."

Completeness Criteria:

"All exercises performed."

"Respond to 8 of 10 test items."

"Work area cleaned and all lab equipment put away."

Accuracy Criteria:

"Meet or exceed the 80th percentile."

"17 of 20 correct."

"Score 90 or better on a teacher test."

Performance Limits

What performance *won't* the student exhibit as a result of the Sub-Program Element? What are the realistic sideboards placed on the desired performance? Refer to Form 28 - Items 4, 6, 10, and 15.

Example: "While gains on other standardized test areas may result, it is not intended that they will be directly proportional to the gains on the reading comprehension sections."

"Improved student performance is guaranteed only in those skills and knowledges specified, to the criterion level indicated."

DRAFTING THE SUB-PROGRAM ELEMENT/AREA OBJECTIVES

An objective is a statement of measurable, desired result to be accomplished within a specified time period. It serves to "close the gap" between current actual performance and desired or "mastery" performance, within a time frame. At this point in the ISAS, The Task Force has received, reviewed, and analyzed input data on a specific Program Element. The task at hand is to write *Sub-Program Element/Area Objectives* which focus on the Program Element deficiency.

The statement of Sub-Program Element/Area Objectives is based on the analysis of input data performed previously. Each Sub-Program Element Objective or Sub-Program Element Area Objective must specify:

- Target Population
- Desired Terminal Performance
- Givens and Conditions of Performance
- Performance Criteria
- Performance Limits.

Here is a sample Sub-Program Element Objective with the various components indicated:

> "On reading achievement portions of the annual standardized testing program, 90% of the 6th Graders enrolled in Language Arts classes will score at or above the 85th percentile on all items measuring short-term recall of fact and sequence."

Breaking the objective down into its component parts:

Sub-Program Element:	Reading achievement, 6th Grade.
Target Population:	6th Graders in Language Arts classes.
Desired Terminal Performance :	Score at or above 85th percentile.
Givens and Conditions of Performance :	Test supplies and classroom situation assumed.
Performance Criteria:	90% of students score at or above 85th percentile.
Performance Limits:	Items measuring short-term recall of fact and sequence.

The *Sub-Program Element Area Objectives* describe the component skills and knowledges required to achieve the Sub-Program Element Objective. In this case, Sub-Program Element Area Objectives would describe performance in 6th Grade reading comprehension, word identification, vocabulary, etc.

At this point, you have assembled all the data required for writing Sub-Program Element/Area Objectives. *Each* of the objectives that are written should contain the component elements defined and illustrated on the previous page, and should adhere to the general model presented.

Some sample Sub-Program Element Area Objectives:

> "On completion of this unit on soldering, students enrolled in TV Repair classes, given a soldering gun, resin-core solder, needle-nose pliers, and leads to be joined, will be able to:
>
> 1. Clean the leads of visible old solder.
> 2. Tin the leads, covering all surfaces.
> 3. Join and crimp the connection.
> 4. Apply solder to the joint.
>
> Solder connections that are shiny, with solder filling only the loops, will be produced in 8 of the first 10 connections evaluated. This unit will not teach soldering of components other than transistors, capacitors, and resistors."
>
> "On completion of the unit on types of sentences, 6th Grade students enrolled in regular Language Arts classes will demonstrate their ability to recognize and identify simple, compound, complex, declarative, and interrogative sentences by correctly identifying 45 of 50 sample sentences on a Department-wide, teacher-made test. All students will complete the test within one 50-minute class period. This unit will not teach recognition of sentence types other than those specified."

Using the data that you have assembled, and the guidelines provided, draft objectives for each *selected Sub-Program Element and its Sub-Program Element Areas*.

CLASSIFICATION OF OBJECTIVES

It will be helpful in the later generating of alternative Program Element systems if each of the Sub-Program Element/Area Objectives that you have written is identified as an *affective*, *cognitive*, or *psychomotor* objective. Use the decision tables below to identify and label each Sub-Program Element and Sub-Program Element Area Objective.

PSYCHOMOTOR OBJECTIVES are most readily discriminated:

IF the objective:	AND IF:	THEN:
- Indicates overt behavior - Involves tactile discrimination - Requires coordination of movement - Produces a tangible, nonverbal product.	- The verb of the objective *precisely specifies* the performance required (e.g., "construct," "draw").	- The objective is PSYCHOMOTOR.

Examples: " ... will be able to weigh out the proper amount of each chemical within 1%."

" ... will be able to trace upper-case letters on acetate with a grease pencil within 1/8 inch of the master letter at any point."

Those objectives that are not Psychomotor are either COGNITIVE or AFFECTIVE.

IF the objective:	AND IF:	THEN:
- Indicates largely covert behavior - Requires application of concepts, rules, or principles - Involves recall of facts - Results in a final product from covert behavior.	- The verb of the objective is imprecise and general ("understand," "solve," "discriminate").	- The objective is COGNITIVE.
- Indicates totally covert behavior - Deals with motivation/attitude - Involves approach behavior by the performer toward the direct object of the verb.	- The verb is extremely nebulous and hard to measure (e.g., "love," "appreciate," "enjoy").	- The objective is AFFECTIVE.

Examples:	COGNITIVE	AFFECTIVE
	" ... list the events leading up to the Revolutionary War."	" ... will appreciate brief works of fiction by recognized authors."
	" ... discriminate between P and B in the initial consonant position."	" ... will choose the advanced course as an objective."

SUB-PROGRAM ELEMENT/AREA OBJECTIVES REVIEW

Examine each Sub-Program Element Objective and its component Sub-Program Element Area Objectives that you have written against the following points.

GENERAL:

- Have you written Sub-Program Element Objectives for each deficient Sub-Program Element within the Program Element?
- Have you written component Sub-Program Element Area Objectives for each area of performance comprising each of the Sub-Program Elements?
- Have you classified each objective as either *psychomotor*, *affective*, or *cognitive*?

SPECIFIC:

- Does each objective (or group of objectives) specify the *Sub-Program Element* to which it relates?
- Does each objective (or group of objectives) specify the *target population?*
- Does each objective describe the *desired criterion performance* in precise, measurable terms?
- Does each objective specify the *givens and conditions of performance?*
- Does each objective state required *performance criteria?*
- Does each objective specify any existing *performance limits* on behalf of the target population?

REWORK YOUR STATEMENT OF OBJECTIVES UNTIL IT MEETS THE CRITERIA OUTLINED IN THE CHECKLIST.

FINAL STATEMENT OF SUB-PROGRAM ELEMENT OBJECTIVES

The Sub-Program Element/Area Objectives that you draft for each deficient Sub-Program Element within the Program Element addressed will serve as the basic input for the remainder of the ISAS. It is essential that the statement of objectives adhere to a model that will optimize their utilization. The statement of objectives should:

- Be divided by the Sub-Program Elements selected for further study in the ISAS.
- List all Sub-Program Element/Area Objectives under the appropriate Sub-Program Element Objective.
- Identify all Sub-Program Element/Area Objectives as either cognitive, affective, or psychomotor.
- Meet all criteria for content, clarity, and specificity.

Example: "Upon completion of 7th Grade Language Arts, the student will demonstrate a knowledge and usage of correct grammar, vocabulary, and spelling." — SUB-PROGRAM ELEMENT OBJECTIVE

"Upon completion of the 7th Grade Language Arts course -

SUB-PROGRAM ELEMENT AREA OBJECTIVES

1. 85% of the students will score at or above the 75th percentile on capitalization, punctuation, and usage sections of the annual standardized Language Arts test. - Cognitive
2. 90% of the students will correctly spell 115 of 125 words on a teacher-made test to be administered to all Language Arts classes. - Cognitive
3. 80% of the students will demonstrate an appreciation of the use of correct grammar by choosing to complete additional optional composition assignments." - Affective
4. etc.

TYPE OF OBJECTIVE

WHEN A FINAL STATEMENT OF SUB-PROGRAM ELEMENT OBJECTIVES IS COMPLETE, FORWARD IT TO THE PROGRAM DIRECTOR.

WORKSHEET D: SUB-PROGRAM ELEMENT/AREA OBJECTIVES REVIEW CHECKLIST

Upon receiving the final statement of Sub-Program Element Objectives from the ISAS Task Force, review them against the criteria outlined below.

ISAS Title and Identification Number: ______________________________

General Criteria:	Yes	No
1. Are all deficient Sub-Program Elements listed as categories in the statement of objectives?	☐	☐
2. Have Sub-Program Element Objectives been written for each Sub-Program Element?	☐	☐
3. Is each objective identified as cognitive, affective, or psychomotor?	☐	☐
4. Have Sub-Program Element/Area Objectives been written for each Sub-Program Element Area?	☐	☐
Specific Criteria:		
1. Do the Sub-Program Element/Area Objectives for each area of deficiency specify the *target population?*	☐	☐
2. Does each objective specify the *desired criterion performance* in precise, measurable terms?	☐	☐
3. Does each objective state all necessary *givens* for criterion performance and describe the *conditions of performance?*	☐	☐
4. Does each objective specify precise *performance criteria?*	☐	☐
5. Do the Sub-Program Element Objectives for each area of deficiency clearly state *performance limits?*	☐	☐

- FOR ALL ITEMS RATED "NO" - Describe revisions required in a separate memo and return it with the statement of objectives to the ISAS Task Force.
- IF NO REVISIONS ARE REQUIRED - Sign off below and forward this checklist and the statement of objectives to the ISAS Director.

SUB-PROGRAM ELEMENT OBJECTIVES APPROVED: ______________________ Program Director ________ Date

ISAS GUIDE 4

Specifying Alternative Systems to Achieve Sub-Program Element Objectives

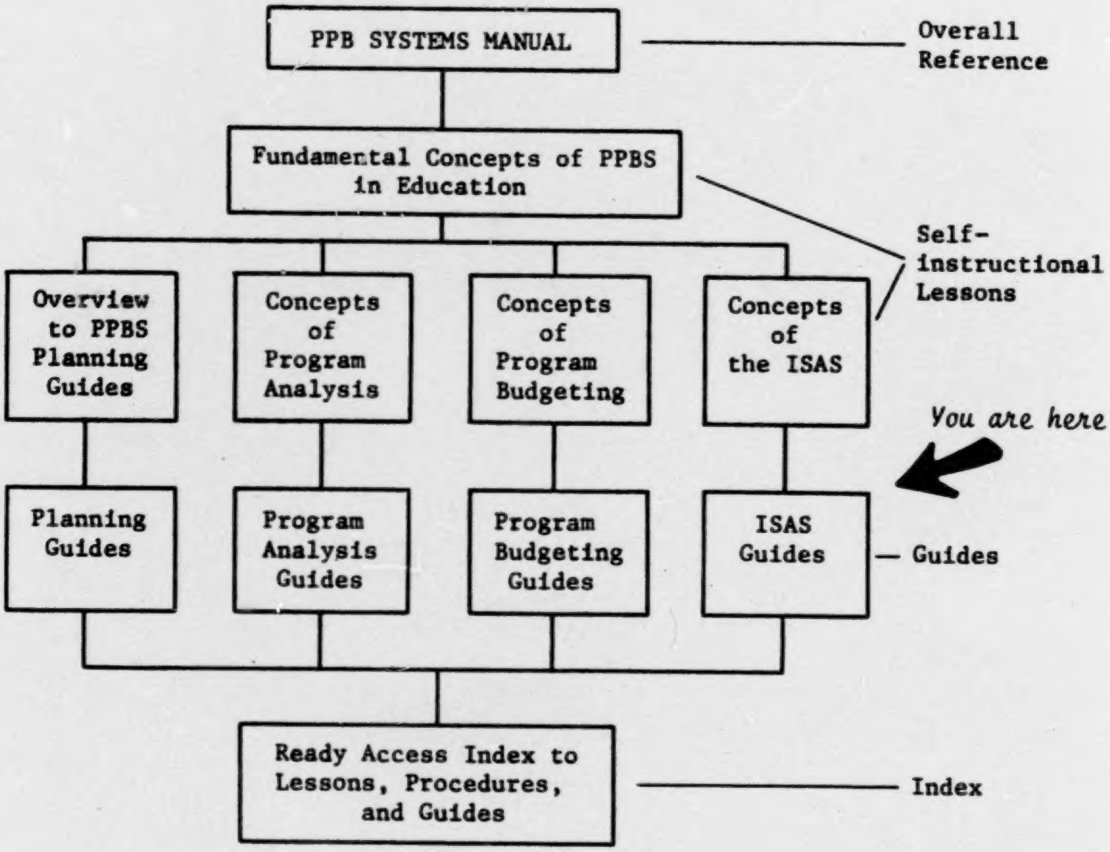
COMPONENT 9
Program Element Coordinator

COMPONENT 10
ISAS Task Force

COMPONENT 11
ISAS Director

Guide 4

WESTERN NEW YORK PPBS TRAINING PACKAGE


PPB SYSTEMS MANUAL
Overall Reference
Fundamental Concepts of PPBS in Education
Self-instructional Lessons
Overview to PPBS Planning Guides
Concepts of Program Analysis
Concepts of Program Budgeting
Concepts of the ISAS
You are here
Planning Guides
Program Analysis Guides
Program Budgeting Guides
ISAS Guides
Guides
Ready Access Index to Lessons, Procedures, and Guides
Index

PURPOSES OF THE GUIDES

This is one of seven *ISAS guides*, which correspond to the seven ISAS procedures (36-42) specified in the PPBS Manual. Their purpose is to *aid in the accomplishment of those procedures* by providing step-by-step guidance to the various roles involved. This guidance takes the form of instructions, diagrams, examples, checklists, worksheets, and samples, depending on the nature of the procedure being guided.

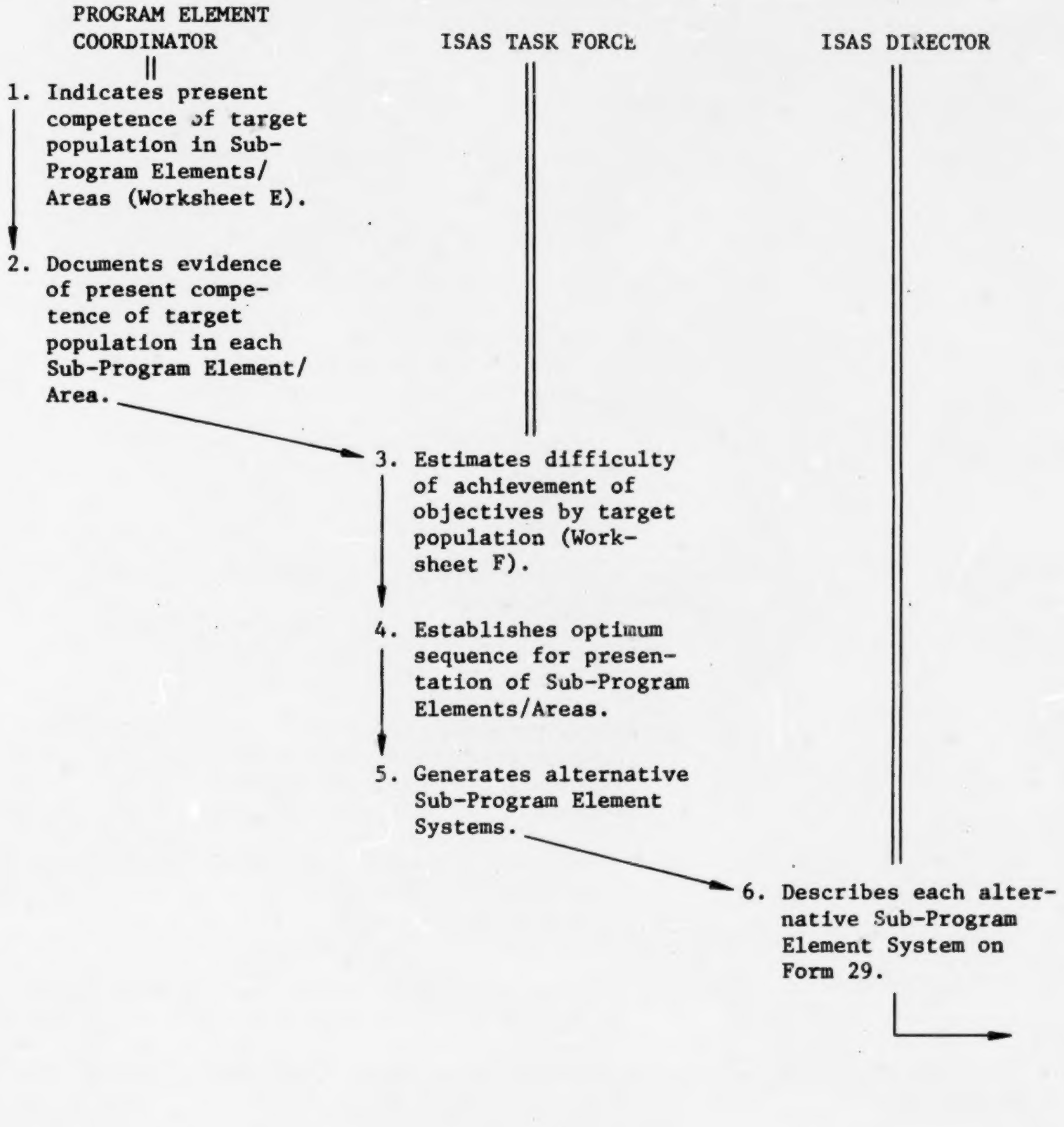
All ISAS guides are subdivided into various *components*, which are intended for use by *specific roles* working within the procedure. The guides and components are organized as follows:

ISAS GUIDE #	ISAS PROCEDURE #
1	36 - Identifying Appropriate Program Element Component 1 - Program Committee Component 2 - Program Element Coordinator Component 3 - Program Committee Program Director Educational Planning Council
2	37 - Organizing the ISAS Component 4 - Program Director Component 5 - ISAS Director
3	38 - Setting Sub-Program Element/Area Objectives Component 6 - ISAS Director Component 7 - ISAS Task Force Component 8 - Program Director
4	39 - Specifying Alternatives to Achieve Sub-Program Element Objectives Component 9 - Program Element Coordinator Component 10 - ISAS Task Force Component 11 - ISAS Director
5	40 - Estimating Potential Benefits for Alternative Systems Component 12 - ISAS Task Force Component 13 - Panel of Experts Component 14 - ISAS Director
6	41 - Developing Cost Estimates for Alternative Systems Component 15 - ISAS Director Component 16 - Program Director Component 17 - School Business Administrator
7	42 - Selecting an Alternative System for Implementation Component 18 - ISAS Director

Component and role are identified in the upper right-hand corner of the guide pages.

ISAS PROCEDURE 39: SPECIFYING ALTERNATIVE SYSTEMS TO ACHIEVE SUB-PROGRAM ELEMENT OBJECTIVES

Procedure 39 is accomplished by the *Program Element Coordinator* (usually, but not always, the ISAS Director), the *ISAS Task Force*, and the *Program Director*. Each role performs specifically assigned tasks, which input to one another and combine to result in a specific description (Form 29) of each of the alternative Sub-Program Element Systems generated in the procedure.



PROGRAM ELEMENT COORDINATOR

1. Indicates present competence of target population in Sub-Program Elements/Areas (Worksheet E).
2. Documents evidence of present competence of target population in each Sub-Program Element/Area.

ISAS TASK FORCE

3. Estimates difficulty of achievement of objectives by target population (Worksheet F).
4. Establishes optimum sequence for presentation of Sub-Program Elements/Areas.
5. Generates alternative Sub-Program Element Systems.

ISAS DIRECTOR

6. Describes each alternative Sub-Program Element System on Form 29.

WORKSHEET E: IDENTIFYING CURRENT COMPETENCE OF TARGET POPULATION IN PROGRAM ELEMENT AREAS

ISAS Title and Identification Number: ____________________

____

Program Element Coordinator: ____________________

TARGET POPULATION: Describe the intended population for the Program Element. *Refer to Form 28 - Item 5.*

____

____

____

Sub-Program Element/Areas	Present Competence	Evidence
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable	

Refer to Form 28 - Item 5.

Sub-Program Element/Areas	Present Competence	Evidence
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	
	☐ Superior ☐ Acceptable ☐ Low ☐ None	

WORKSHEET E GUIDE: IDENTIFYING CURRENT COMPETENCE OF TARGET POPULATION IN PROGRAM ELEMENT AREAS

As Program Element Coordinator, you are charged with determining the present level of competency of the target population in the Sub-Program Element Areas which the Program Element is designed to remedy. This recorder worksheet will guide your collection and communication of data on target population competency.

To complete Worksheet E:

- List *all Sub-Program Elements and Areas* encompassed by the Program Element in the *Sub-Program Element/Areas* column.
- *For each Area,* indicate the current level of competency of the target population by checking the appropriate block:

  Superior - above grade level
  Acceptable - at grade level
  Low - 1-2 grade levels below
  None - 3 or more grade levels below

- List the data sources that support your competency estimate in the *Evidence* column.

Example:

Sub-Program Element/Areas	Present Competence	Evidence
1. *Reading Comprehension -* a. *Use of context clues to determine word meaning.*	☐ Superior ☐ Acceptable ☑ Low ☐ None	a. *Standardized reading tests - 6/70 show population 1-grade level below state norms in this area.*
b. *Short-term recall of sequence.*	☐ Superior ☐ Acceptable ☑ Low ☐ None	b. *See above.*

WHEN YOU HAVE COMPLETED WORKSHEET E FOR ALL AREAS OF THE PROGRAM ELEMENT, FORWARD IT TO THE ISAS TASK FORCE.

The tasks of the ISAS Task Force in Procedure 39 are as follows:

1. To review the *present level of competence* of the target population in the Sub-Program Elements/Areas under study in the ISAS.
2. To *estimate the difficulty* that the target population will have in achieving the objectives of each Sub-Program Element.
3. To *determine feasible alternative* Sub-Program Element Systems.

Input for accomplishing these tasks includes:

- Final statement of Sub-Program Element/Area Objectives, approved by the Program Director.
- Present Competence Estimate - Worksheet E - Completed by the Program Element Coordinator.

The remainder of this guide is divided into two sections. The first is an item-by-item guide to the attached *Worksheet F*, which encompasses estimating difficulty of performance by the target population and establishing an optimum sequence of performance areas.

The second section, *Generating Alternative Sub-Program Element Systems*, provides general guidelines for the specification of alternative systems to accomplish the Sub-Program Element Objectives.

WORKSHEET F: ALTERNATIVE SEQUENCES OF OBJECTIVES

ISAS Title and Identification Number: ______________________________

1. Sub-Program Element/Areas	2. Present Competence	3. Estimated Difficulty	4. Competes With -	5. Basic and Facilitating	6. Freque

WORKSHEET F: ALTERNATIVE SEQUENCES OF OBJECTIVES

dentification Number: ____________________

ent/Areas	2. Present Competence	3. Estimated Difficulty	4. Competes With -	5. Basic and Facilitating	6. Frequency	7. Interest	8. Optimum Sequence

WORKSHEET F GUIDE: ALTERNATIVE SEQUENCES OF OBJECTIVES

Worksheet F is designed to document your *estimate of difficulty* that the target population will experience in the various Sub-Program Element Areas, and to *guide* your analysis and decision making as to the *optimum sequence of performance areas* in a Sub-Program Element system. Use this guide as you work through the numbered columns on Worksheet F.

Column 1: Sub-Program Elements/Areas

The final statement of objectives is divided into Sub-Program Elements. Under each, the *specific Sub-Program Element/Areas* are described. Briefly describe each in Column 1.

Example:

Sub-Program Element/Areas	
1. Woodworking - Grade 9 a. Use of woodworking hand tools. b. Use of bench-mounted woodworking power tools.	

Column 2: Present Competence

Enter the *estimate of present competence* of the target population in each Sub-Program Element Area from Worksheet E which was completed by the Program Element Coordinator. Each estimate for each area will be stated on Worksheet E as either Superior, Acceptable, Low, or None.

Example:

Sub-Program Element/Areas	Present Competence	
1. Use of mncm mnmnmnmn cmncn nmn nn	1. Acceptable	
2. Use of nn mnmnnmm mnm mncmncm mnmn	2. Low	

Column 3: Estimated Difficulty

For each Sub-Program Element Area listed, *estimate the difficulty* that it presents to the target population by comparing the performance required by the Sub-Program Element Area objectives to the current level of competence. Enter the estimate as *Great, Moderate,* or *Low* in the column provided.

Example:

> If examination of the Sub-Program Element objectives in a particular Sub-Program Element/Area shows a *high level of performance criteria* (90% of the students will score 90% or better), and the current competence of the target population in that area is *low*, then the estimate of difficulty would be *Great*.

Column 4: Competes With

Competition exists when two Sub-Program Element Areas are so similar in task, topic, or concept that the learner *may become confused* and fail to achieve the objectives of either or both of the competing areas. Examine the Sub-Program Element Areas listed in the Sub-Program Element Area column. If any area appears to compete with another, examine the *objectives* of each to verify the competition. Enter the number of the competing area in the *Competes With* column.

Example:

Sub-Program Element/Area	Competes With
i. Use of ten basic word prefixes	Area i.
n. Use of eight basic word suffixes	Area n.

Column 5: Basic and Facilitating

Just the opposite of *competition*, some Sub-Program Element Areas can be identified as fundamental to total performance or as *facilitating performance in another area* of the Sub-Program Element. Again, examine the Sub-Program Element Areas listed. If an area is basic to total performance, enter "All" in the column provided. If an area facilitates another specific area, enter that area's number in the column.

Example:

Sub-Program Element/Area	Basic and Facilitating
d. *Ability to read simple blueprints*	*All*
g. *Use of mitre box and hand saw*	*Facilitates Area O*
o. *Ability to make angle joinings*	----

Column 6: Frequency

Indicate *how often* performance specified in each Sub-Program Element Area will be exhibited in the total Program Element domain. Indicate whether the target population will use the skills and knowledges in each performance area with *Great, Moderate,* or *Seldom* frequency over the time frame of the Program Element.

Column 7: Interest

Based on your knowledge of the target population, make a "best guess" as to whether the interest of the target population in each Sub-Program Element Area is *High, Moderate, Low* or *None.*

Column 8: Determining Optimum Sequences

The final column on Worksheet F is for the specification of the Optimum Sequence of Sub-Program Elements and their component Sub-Program Element Areas. The decision as to the respective place of each area in the sequence is based on the factors described in the other columns of Worksheet F.

As you review the sequencing factors for each Sub-Program Element Area, keep these rules in mind:

- Areas that are *basic* or *serve to overview* total Program Element performance should be presented first.
- Areas of *great estimated difficulty* should be presented as early in the sequence as possible.
- Areas that *facilitate* achievement of objectives in another area should be presented *before* the area they facilitate.
- Areas that are in *competition* with one another should be presented as close to each other as possible.
- Areas of *frequent* performance should be presented early in the sequence.
- Areas of *high interest* should be distributed through the sequence to help establish and maintain motivation.
- If none of the above factors are significant, the Sub-Program Element Areas can be sequenced in normal performance order, or in any other logical order. (E.g., chronological, historical, general-to-specific, etc.)

According to the above rules, specify the *optimum sequence* of Sub-Program Elements and their component Sub-Program Element Areas by entering a number indicating position in the *Optimum Sequence* column.

GENERATING ALTERNATIVE SUB-PROGRAM ELEMENT SYSTEMS

Generating alternative Sub-Program Element systems consists of *describing the various ways* in which the objectives of the Sub-Program Elements under study in the ISAS can be achieved. It is important to remember that while the various alternatives generated may indicate a different *sequence* of Sub-Program Element Areas, or different *presentation activities* for the various Areas, the *objectives* remain constant.

In generating alternatives, you will be required to perform these tasks.

- Describe the *optimum sequence* of Sub-Program Element Areas. (Worksheet F.)
- Describe *other feasible sequences* of Sub-Program Element Areas.
- Describe *feasible presentation activities* for each sequence of Areas generated.

The number of alternatives generated will depend upon the particular ISAS with which you are involved. One of the alternatives that you describe will be selected, largely on the basis of cost-effectiveness, for implementation within the Program Element. The following guidelines will be helpful to you in accomplishing the tasks outlined above as you work toward describing realistic alternatives as input for cost-effective decision making later in the ISAS.

Your worksheets, in generating alternatives, are *abundant blank sheets of paper*.

TASK 1: Describe the Optimum Sequence of Sub-Program Element Areas

You have already accomplished this task in draft form when you completed the final column on Worksheet F. Using that column as a guide, list the Sub-Program Element Areas in the optimum sequence indicated.

TASK 2: Describe Other Feasible Sequences.

What sequences of Sub-Program Element Areas are feasible other than the optimum sequence already described? This will depend largely on the subject of the particular ISAS, but consider these as possible alternative sequence models:

- Historical or chronological sequence.
- Simple-to-complex sequence.
- Normal performance order sequence.

Etc.

Describe all feasible alternative sequences by listing the Sub-Program Element Areas in the order dictated by the sequence model chosen.

TASK 3: Describe Feasible Presentation Activities

To this point, you have established an *optimum sequence* and *feasible alternative sequences* for the Sub-Program Element Areas that are under study. The task at hand is to indicate appropriate, feasible *presentation activities* for each Sub-Program Element Area.

Classes of presentation activities include, but are not limited to, the following:

- *Lecture* (with chalkboard, OH projector, visual aids).
- *Self-instruction (individualized programmed* texts, audio cassettes, teaching machines, etc.).
- *A-V group instruction* (movie, film strip, slide-tape, ITV, etc.).
- *Practice sessions* (lab assignments, workshop, simulated or on-the-job exercises, drill and review exercises).

The selection of a presentation activity for a particular Sub-Program Element Area is directly contingent upon the *objectives* for that Area. That is, the type and level of performance described in the Sub-Program Element Area objectives.

Refer to the final statement of Sub-Program Element/Area objectives in describing appropriate, feasible presentation activities for each Sub-Program Element Area.

- *Lecture* is appropriate when the objectives indicate:
  - A general overview of content and sequence.
  - Lock-step instruction is required.
  - Instructions are common to the group.
  - Level of learning is low.
  - Feedback is required.
- *Self-Instruction* is appropriate when the objectives indicate:
  - New and difficult subject matter.
  - Individualized instruction is required.
  - Overlearning is desired.
  - Concept formation is involved.
  - Establishing prerequisite knowledges is vital.
  - Much discrimination is involved.
  - Level of learning is high.
  - Terminal performance involves written responses.

- *A-V Group Instruction* is appropriate when the objectives indicate:
    - A general overview of content and sequence.
    - Simulation of motion or movement is required.
    - Lock-Step instruction is required.
    - Feedback is not required.
    - A high degree of simulation is required.
- *Practice Sessions* are appropriate when the objectives indicate:
    - Transfer of learning to performance.
    - High level of learning.
    - High level of simulation.
    - Final course or unit activity.
    - Review or drill activity.
    - Individualized or homogeneous activity.

You have now established an *optimum sequence* of Sub-Program Element Areas, *other feasible sequences,* and the *presentation activity/vehicles* that are feasible for each Sub-Program Element Area. It is the task of the ISAS Director to formally describe each Sub-Program Element alternative on a Form 29. As input to that task, write a draft description of the alternatives to be considered, based on the elements you have assembled.

Your draft description of the alternative should do these things:

1. Identify the alternative with a letter designator. The first is "Alternative A," the second "Alternative B," and so on.

2. Identify the Sub-Program Element being considered. This is the major categories being considered in the ISAS, as described in the first column on Worksheet F.

3. List the Sub-Program Element Areas in the sequence prescribed by the particular alternative. "Alternative A" might represent the optimum sequence from Worksheet F. "Alternative B" might represent chronological or simple-to-complex sequence, and so on.

4. Describe the presentation activity considered feasible for each Sub-Program Element Area, or groups of Areas, as indicated by the preceding guidelines.

Again, the number of alternatives generated will depend on the particular ISAS. Possibly, all will represent the optimum sequence but will vary in presentation activity (self-instruction as opposed to lecture, for example).

What is important is that *feasible alternatives for achieving the objectives* of each Sub-Program Element be considered.

WHEN A DRAFT OF EACH ALTERNATIVE TO BE CONSIDERED HAS BEEN COMPLETED, IT BECOMES INPUT FOR THE ISAS DIRECTOR IN COMPLETING FORM 29.

FORM 29 - SUMMARY DESCRIPTION OF ALTERNATIVE SYSTEMS

ISAS Title and ID Number: ____________________

ISAS Director: ____________________ District: ____________________

Narrative Description - Alternative A B C D ___	Sub-Program Element Area:	Presentation Mode	Perfor Crite

FORM 29 - SUMMARY DESCRIPTION OF ALTERNATIVE SYSTEMS

r: ______________________________

______________________ District: ______________

n - Alternative A B C D ___	Sub-Program Element Area:	Presentation Mode	Performance Criteria	Measured By:

FORM 29 GUIDE: SUMMARY DESCRIPTION OF ALTERNATIVE SYSTEMS

Input for the construction of Form 29 is the *draft of alternative Sub-Program Element systems* completed by the ISAS Task Force, and the *final statement of Sub-Program Element/Area Objectives* -- also completed by the ISAS Task Force.

It is the responsibility of the ISAS Director to complete a Form 29 for each alternative Program Element System generated by the ISAS Task Force.

CONSTRUCTING THE FORM 29:

1. Enter the identification data in the spaces provided at the top of the form.

2. *Narrative Description.* Identify the alternative system being described by circling the appropriate letter designator. If more than four alternatives were generated, write in the appropriate letter designator in the space provided.

   In brief, clear, narrative paragraphs, describe:

   - The *Sub-Program Element* under study.
   - The *target population.*
   - The *Sub-Program Element Areas* and *presentation activities* included in the alternative.
   - *Time frame* of the alternative -- one year, three years, etc.
   - The *personnel, media, equipment, and supplies* required by the alternative being described.

3. *Sub-Program Element Area.* List the Sub-Program Element Areas that the alternative will treat, *in the sequence* specified by the alternative being described.

4. *Presentation Activity.* For each area listed, describe the manner in which it will be presented to the target population.

5. *Performance Criteria.* Review the statement of Sub-Program Element objectives for each Sub-Program Element Area. State the general performance criteria for each area in the column.

6. *Measured by:*

> Complete this column by consulting with the Assistant Superintendent for Research and Planning, who will assist you in specifying appropriate performance measurement techniques.

ISAS GUIDE 5

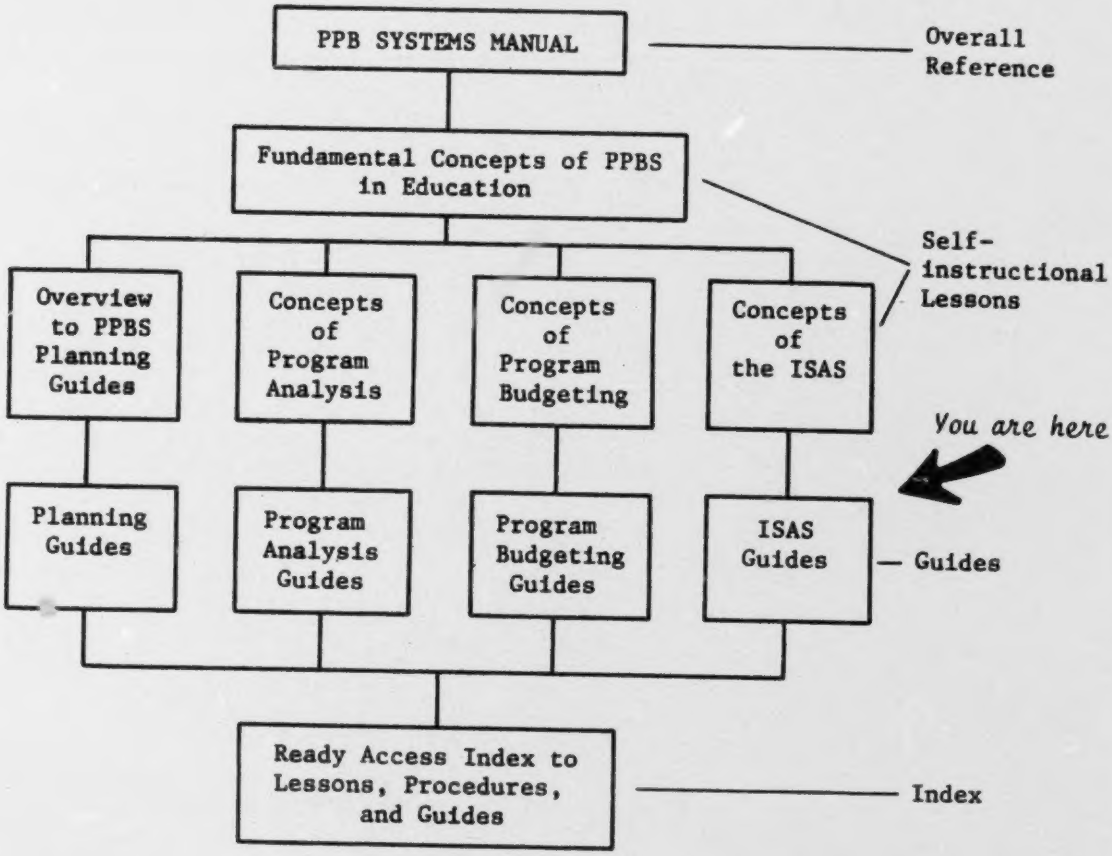
Estimating Potential Benefits for Alternative Systems

COMPONENT 12
ISAS Task Force

COMPONENT 13
ISAS Director

COMPONENT 14
Panel of Experts

WESTERN NEW YORK PPBS TRAINING PACKAGE


PPB SYSTEMS MANUAL
Overall Reference
Fundamental Concepts of PPBS in Education
Self-instructional Lessons
Overview to PPBS Planning Guides
Concepts of Program Analysis
Concepts of Program Budgeting
Concepts of the ISAS
You are here
Planning Guides
Program Analysis Guides
Program Budgeting Guides
ISAS Guides
Guides
Ready Access Index to Lessons, Procedures, and Guides
Index

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PURPOSES OF THE GUIDES

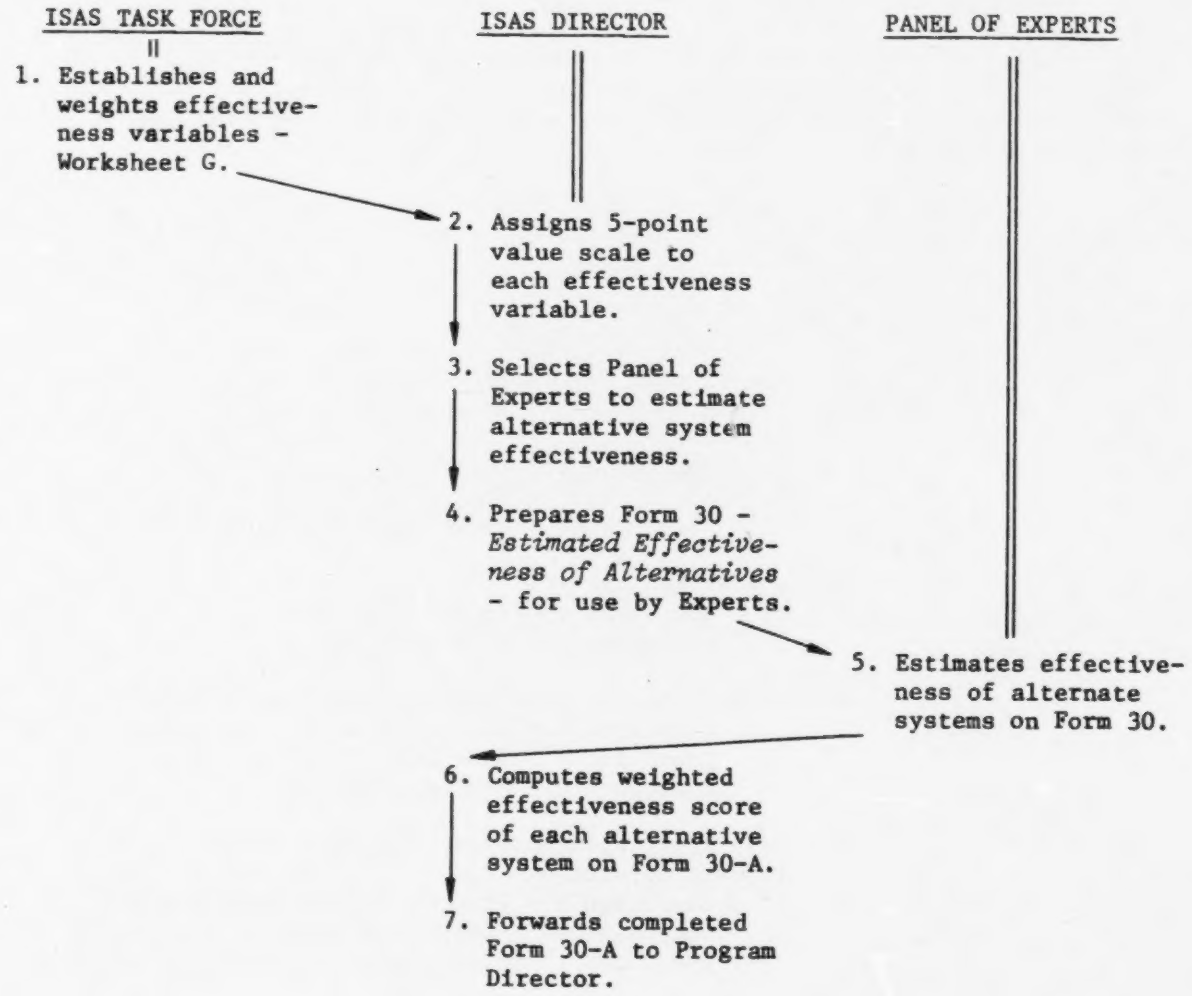
This is one of seven *ISAS guides*, which correspond to the seven ISAS procedures (36-42) specified in the PPBS Manual. Their purpose is to *aid in the accomplishment of those procedures* by providing step-by-step guidance to the various roles involved. This guidance takes the form of instructions, diagrams, examples, checklists, worksheets, and samples, depending on the nature of the procedure being guided.

All ISAS guides are subdivided into various *components*, which are intended for use by *specific roles* working within the procedure. The guides and components are organized as follows:

ISAS GUIDE #	ISAS PROCEDURE #
1	36 - Identifying Appropriate Program Element Component 1 - Program Committee Component 2 - Program Element Coordinator Component 3 - Program Committee Program Director Educational Planning Council
2	37 - Organizing the ISAS Component 4 - Program Director Component 5 - ISAS Director
3	38 - Setting Sub-Program Element/Area Objectives Component 6 - ISAS Director Component 7 - ISAS Task Force Component 8 - Program Director
4	39 - Specifying Alternatives to Achieve Sub-Program Element Objectives Component 9 - Program Element Coordinator Component 10 - ISAS Task Force Component 11 - ISAS Director
5	40 - Estimating Potential Benefits for Alternative Systems Component 12 - ISAS Task Force Component 13 - Panel of Experts Component 14 - ISAS Director
6	41 - Developing Cost Estimates for Alternative Systems Component 15 - ISAS Director Component 16 - Program Director Component 17 - School Business Administrator
7	42 - Selecting an Alternative System for Implementation Component 18 - ISAS Director

Component and role are identified in the upper right-hand corner of the guide pages.

ISAS PROCEDURE 40: ESTIMATING POTENTIAL BENEFITS FOR ALTERNATIVE SYSTEMS



ISAS TASK FORCE

1. Establishes and weights effectiveness variables - Worksheet G.

ISAS DIRECTOR

2. Assigns 5-point value scale to each effectiveness variable.
3. Selects Panel of Experts to estimate alternative system effectiveness.
4. Prepares Form 30 - *Estimated Effectiveness of Alternatives* - for use by Experts.

PANEL OF EXPERTS

5. Estimates effectiveness of alternate systems on Form 30.

ISAS DIRECTOR

6. Computes weighted effectiveness score of each alternative system on Form 30-A.
7. Forwards completed Form 30-A to Program Director.

ESTABLISHING AND WEIGHTING EFFECTIVENESS VARIABLES

The ISAS Director, working from your input, has made a detailed description of each Sub-Program Element alternative on a Form 29. Procedure 40 results in an *estimate of effectiveness for each alternative*. This, along with cost data on each alternative, serves as the basis for cost-effective decision making in the selection of one of the alternatives for implementation.

In order to make the estimate of effectiveness for each alternative as objective and systematic as possible, it is necessary for the ISAS Task Force, at this point in Procedure 40, to do these things:

1. Establish *effectiveness variables*.
2. *Assign weights* to the variables established.

The weights assigned will be used later by the ISAS Director in *computing the weighted effectiveness score* of each alternative, in conjunction with the effectiveness estimates made by the Panel of Experts.

ESTABLISHING EFFECTIVENESS VARIABLES

Effectiveness factors are really *general areas of measure* that are applied uniformly to all alternatives. They are the major points that need to be considered in judging the relative effectiveness of each alternative. This guide will not prescribe a set of variables that must be used in all ISAS situations. Clearly, the variables will vary with the subject matter and particular situation.

The following is a list of *general effectiveness variables* that are probably worth considering in all cases. The list represents a *model*, which may or may not apply to your efforts. Your charge is to select those from the list that are applicable to the ISAS you are performing, and establish any others needed to measure estimated effectiveness of the alternatives.

RULE: NO MATTER WHAT THE SOURCE, ALL VARIABLES ESTABLISHED MUST BE CONSIDERED AGAINST EACH ALTERNATIVE BY THE PANEL OF EXPERTS.

Illustrative General Effectiveness Variables

1. Performance Sequence: How effective is the alternative's *sequence* of Sub-Program Element Areas?
2. Presentation Activity: How effective are the various *presentation activities* in the Sub-Program Element Areas for which they are specified?

3. Student Attitude: How effective is the alternative considering the target population's *present interest and accomplishment* in the Sub-Program Element?

4. Teacher Competence: How effective is the alternative considering *present teacher competence* against the presentation activities indicated?

5. Time Feasibility: How effective is the alternative considering the *time allotted* for achievement of the Sub-Program Element Objectives?

6. Parallel Data: How effective have *similar systems* been with the same or similar target population?

7. Degree of Individualization: How effective is the alternative in *dealing with individual differences* in learning style within the target population?

8. Teacher/Student Ratio: How effective is the alternative in terms of the *student/teacher ratio* indicated?

9. Teacher Reaction: How effective is the alternative considering the *probable reaction* of the teachers involved?

10. Administration: How effective is the alternative in terms of *ease or difficulty of administration?*

The nature of the particular ISAS being performed will serve to indicate which of the general effectiveness factors are applicable. The important thing is that no matter whether the effectiveness variables are from the list or locally generated, *each must be considered against each alternative* by the Panel of Experts as they estimate effectiveness.

ASSIGNING WEIGHTS TO EFFECTIVENESS VARIABLES

Having selected from the list, or generated locally, the effectiveness variables that are to be considered in estimating the effectiveness of the various Sub-Program Element alternatives, it is necessary to assign a *weight* to each variable. A weight is an *indicator of relative importance* of each variable among all the others -- which means that the *more important* the ISAS Task Force considers a particular variable, the *higher* its weight.

Worksheet G is designed for use in assigning weights to the effectiveness variables established. The examples provided in the following item-by-item guide to Worksheet G are from the general list of effectiveness variables; however, this *does not mean* they must be used in all cases.

GUIDE TO WORKSHEET G

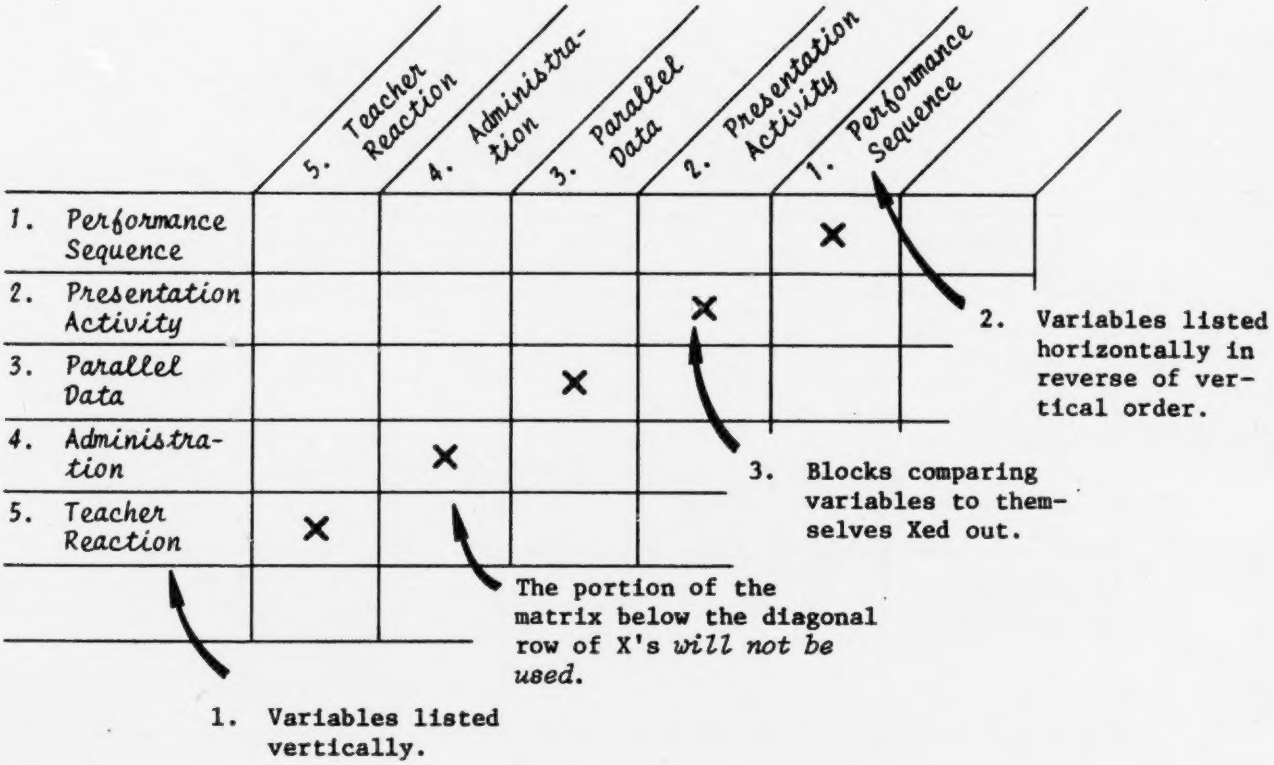
Setting Up the Matrix

1. List all effectiveness variables vertically in the left column of the matrix. (If more than 10, construct a larger matrix.)

2. List all variables horizontally *in reverse order* across the top of the matrix.

3. X out all matrix blocks which result in a variable being compared to itself.

Your matrix should now look like this -


5. Teacher Reaction
4. Administration
3. Parallel Data
2. Presentation Activity
1. Performance Sequence
1. Performance Sequence
2. Presentation Activity
3. Parallel Data
4. Administration
5. Teacher Reaction
×
×
×
×
×

2. Variables listed horizontally in reverse of vertical order.

3. Blocks comparing variables to themselves Xed out.

The portion of the matrix below the diagonal row of X's *will not be used*.

1. Variables listed vertically.

Use of the Matrix in Decision Making

Beginning with the block in the upper left corner of the matrix, decide the relative importance of *each pair* of variables. Then, indicate the most important of the two being compared by writing its number designator in the block.

In the sample below, the upper left block compares *Performance Sequence* (1) with *Teacher Reaction* (5). Of the two, Performance Sequence was considered the more important, and so "1" was entered in the intersect block.

Working from the upper left block, continue through the matrix, comparing each pair of variables until *all* comparisons have been made.

Your matrix should now look like this -

	5. Teacher Reaction	4. Administration	3. Parallel Data	2. Presentation Activity	1. Performance Sequence	
1. Performance Sequence	1	4	1	2	×	
2. Presentation Activity	2	4	2	×		
3. Parallel Data	5	4	×			
4. Administration	4	×				
5. Teacher Reaction	×					

Responding to the Completed Matrix

The second part of Worksheet G guides your accurate response to the decisions made in completing the matrix.

1. In the *Variables* column, list the effectiveness variables considered in the matrix according to their number designator order. This will be the same order in which they appear in the vertical column of the matrix.

2. Count the number of times each variable was selected as most important in the matrix (number of times its number designator appears) and enter the total for each variable in the *Times Selected* column.

3. If any variable totals zero times selected, add 1 to all variable totals. The *Adjustment for Zero* column indicates this step. ONLY ADJUST FOR ZERO IF ONE OR MORE OF THE EFFECTIVENESS VARIABLES TOTALS ZERO TIMES SELECTED IN THE MATRIX.

4. Record the final weight for each variable in the *Weights* column. This would be the total times each variable was selected in the matrix, plus any required adjustment for zero.

Using the completed sample matrix, here is an example of computing weights:

VARIABLE	TIMES SELECTED	ZERO ADJUSTMENT	WEIGHT
1 - Performance Sequence	2	plus 1	3
2 - Presentation Activity	1	plus 1	2
3 - Parallel Data	0	plus 1	1
4 - Administration	4	plus 1	5
5 - Teacher Reaction			

In the example above:

- Variable 3, *Parallel Data*, was selected zero times, and so the adjustment for zero is made *to all scores*.

- Variable 4, *Administration*, with a final weight of 5, is the *most important* of the variables. Variable 3, *Parallel Data*, with a weight of 1, is *least important* of the variables.

  Variables 2 and 5, *Presentation Activity* and *Teacher Reaction*, have identical weights of 2, and so are of equal importance.

UPON COMPLETION, WORKSHEET G BECOMES INPUT FOR THE ISAS DIRECTOR.

WORKSHEET G
ISAS TASK FORCE

ASSIGNING WEIGHTS TO THE EFFECTIVENESS VARIABLES

ISAS Title and Identification Number: ____________________

ISAS Director: ____________________ District: ____________________

	10	9	8	7	6	5	4	3	2	1
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

EFFECTIVENESS VARI

1
2
3
4
5
6
7
8
9
10
___
___
___

UPON COMPLETI
FOR THE ISAS
NESS SCORES G

WORKSHEET G
ISAS TASK FORCE

IGHTS TO THE EFFECTIVENESS VARIABLES

tion Number:. ______________________

______________ District:______________

8	7	6	5	4	3	2	1

EFFECTIVENESS VARIABLE	TIMES SELECTED	ZERO ADJUSTMENT	WEIGHT
1		(plus 1) =	
2		(plus 1) =	
3		(plus 1) =	
4		(plus 1) =	
5		(plus 1) =	
6		(plus 1) =	
7		(plus 1) =	
8		(plus 1) =	
9		(plus 1) =	
10		(plus 1) =	
____		(plus 1) =	
____		(plus 1) =	
____		(plus 1) =	

UPON COMPLETION, WORKSHEET F BECOMES INPUT FOR THE ISAS DIRECTOR IN COMPUTING EFFECTIVENESS SCORES GENERATED BY A PANEL OF EXPERTS.

ISAS DIRECTOR'S TASKS

Prior to submitting the Form 29, *Description of Alternative Systems,* to a Panel of Experts for an estimate of the relative effectiveness of each alternative, the ISAS Director must perform *three tasks* with the collective purpose of increasing the effectiveness and efficiency of the Expert's estimate. These are:

1. Assign a five-point value scale (semantic differential) to *each* Effectiveness variable to be used in the estimate.
2. Select the Panel of Experts.
3. Prepare Form 30 (Component 14) for its use by entering the *Effectiveness variables* to be considered and the *value scale* assigned to each variable. (Task 1)

Upon completion of a Form 30 for each alternative system by each member of the Panel of Experts, the ISAS Director has a fourth task: *Computing Weighted Effectiveness Scores*. This will be described later in the guide.

ASSIGNING VALUE SCALES TO THE EFFECTIVENESS VARIABLES

As stated earlier, the *Effectiveness variables* established for use in the ISAS will vary with the particular situation and subject matter. Obviously, the value scales assigned to the variables will show variation also. No matter what the Effectiveness variable is, an appropriate value scale can be assigned according to the following general guidelines:

- The value scale for each variable must consist of verbal indicators describing five levels of effectiveness.

Example: If the Effectiveness variable is "Administration," the *assigned value scale* might be -

5 - No administrative problems
4
3
2
1 - Constant administrative problems

- The value scale for each variable should provide verbal indicators of effectiveness from *high* to *low*.
    - In the example above, "No administrative problems" indicates *high* effectiveness; "Constant administrative problems" indicates *low* effectiveness; levels 4, 3, and 2 indicate differing *intermediate* or moderate effectiveness.

- The verbal indicators of each value scale must carry a numerical coefficient of 5, 4, 3, 2, or 1 depending upon the level of effectiveness of each indicator.

Example: *If* our Effectiveness variable is "Teacher Competence"

and if our value scale is - 5 - Complete competence
4
3
2
1 - Lacking competence

then the numerical value of the effectiveness variable depends on the level selected.

Example: "Complete competence" - 5 (*high* effectiveness indicated)

"Adequate competence" - 3 (*moderate* effectiveness indicated)

"Inadequate competence" - 1 (*low* effectiveness indicated)

SELECTING THE PANEL OF EXPERTS

Because of the tremendous variation of possible ISAS subjects, in terms of situation, population, target population, and level of performance, it is impossible to identify who the specific "Experts" should be. In general, the ISAS Director should adhere to the following guidelines in selecting a Panel of Experts to estimate the effectiveness of the various ISAS alternative systems.

The Experts should -

- Have functional knowledge of the community, faculty, and students.
- Be familiar with district/school programs.
- Be familiar with various instructional activity, media, and design.
- Be aware of district/school/community constraints.
- Be aware of district/school priorities.

Depending on the particular ISAS, the Panel of Experts could be local university professors, teachers, district staff, students, or community members.

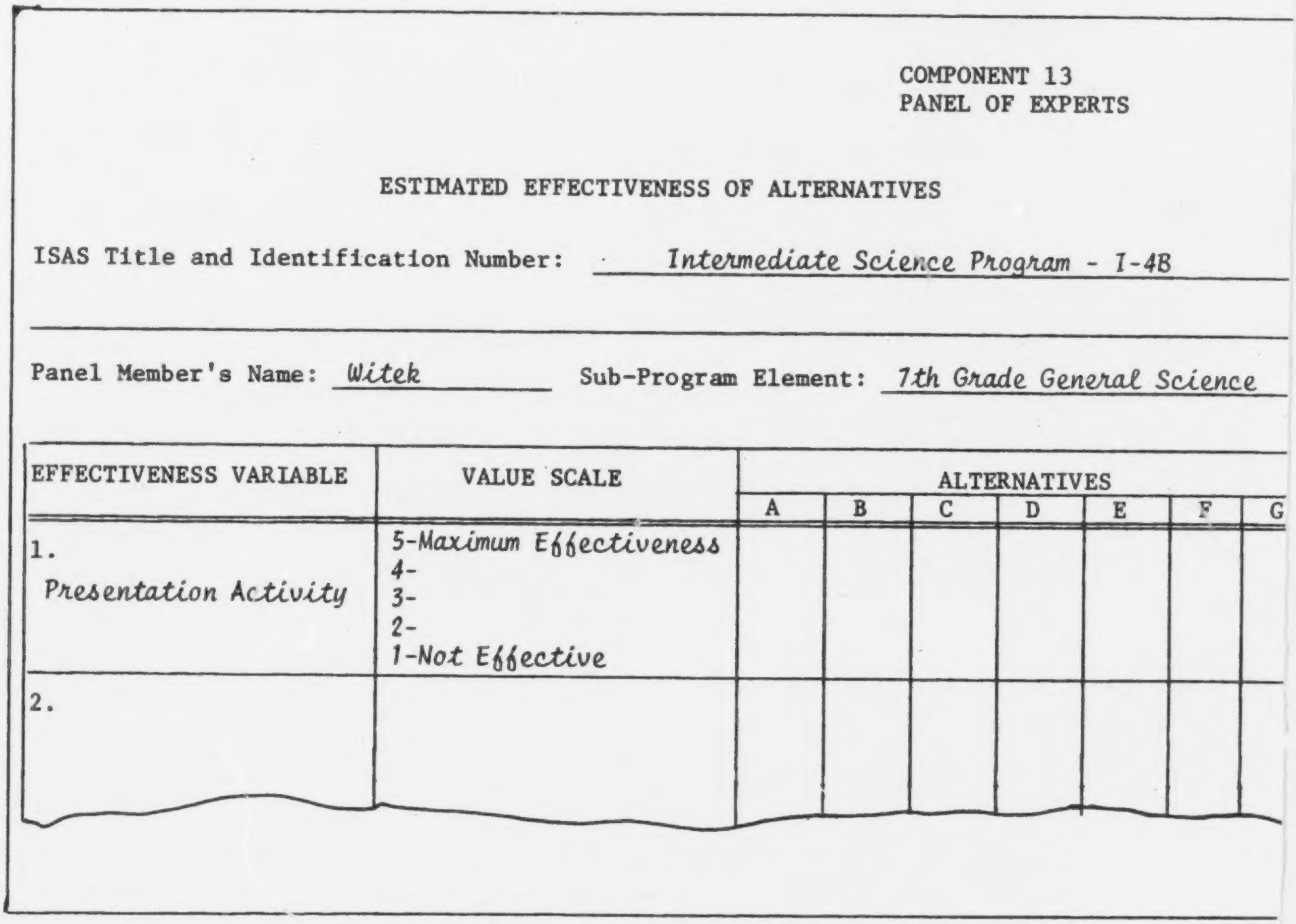
Once the Panel of Experts has been identified and selected, the ISAS Director is to provide it with:

1. Component 14.
2. Sufficient copies of the Form 30 *previously prepared for its use.*
3. Form 29, Description of Alternative Systems, completed in Procedure 39.

PREPARING FORM 30 FOR THE PANEL OF EXPERTS

Once a five-point *value scale* (verbal indicators of effectiveness and their numerical coefficients) has been assigned to each Effectiveness variable to be considered by the Panel of Experts, the ISAS Director prepares Form 30's in sufficient quantity for use by the Panel. This is done by:

1. Entering the *Effectiveness variables* to be considered in the appropriate column on Form 30.
2. Entering the *value scale* for each variable in the appropriate column on Form 30.
3. Having sufficient copies of the prepared Form 30 made for use by the Panel of Experts.



COMPONENT 13
PANEL OF EXPERTS

ESTIMATED EFFECTIVENESS OF ALTERNATIVES

ISAS Title and Identification Number: Intermediate Science Program - I-4B

Panel Member's Name: Witek   Sub-Program Element: 7th Grade General Science

EFFECTIVENESS VARIABLE	VALUE SCALE	ALTERNATIVES						
		A	B	C	D	E	F	G
1. Presentation Activity	5-Maximum Effectiveness 4- 3- 2- 1-Not Effective							
2.								

COMPUTING WEIGHTED EFFECTIVENESS SCORES

After the Panel of Experts *has completed its estimate of effectiveness* of the alternative systems, it will return all completed Form 30's to the ISAS Director. It is the ISAS Director's task to compute the weighted *effectiveness score of each alternative.* This is done by completing Form 30-A according to the steps outlined below:

1. Enter all *Effectiveness variables* in the appropriate column on Form 30-A.

2. Enter the *weight* assigned to each variable from Worksheet G (Component 12) in the appropriate column on Form 30-A.

3. Obtain the *average value* assigned each alternative for each Effectiveness variable by:

   - Totaling the score for each variable for each alternative.

   - Dividing each total by the number of experts on the Panel of Experts.

4. Enter the letter designator (A, D, F, etc.) and average value of each alternative for each variable in the column provided. BE SURE TO LIST THEM IN ALPHABETICAL ORDER.

Example: In the AVERAGE VALUE column, for each Effectiveness variable, enter the letter designator and numerical average as follows:

A - 4; B - 1; C - 3; D - 2; E - 5.

5. Multiply the *weight* of each Effectiveness variable times the *average value* of each alternative for that variable. Enter the total for each alternative for each variable under the appropriate letter designator in the ALTERNATIVE column.

6. Total the scores of each alternative by adding the numbers listed under each alternative letter designator in the ALTERNATIVE column.

7. Enter the total scores of each alternative in the WEIGHTED EFFECTIVENESS SCORE block according to letter designator.

FORM 30-A SHOULD BE FORWARDED TO THE PROGRAM DIRECTOR TO BE ENCLOSED WITH THE PRODUCTS OF PROCEDURE 41 AS INPUT TO PROCEDURE 42.

FORM 30-A
ISAS DIRECTOR

WEIGHTED EFFECTIVENESS SCORE OF ALTERNATIVE

ISAS Title and Identification Number:____

____

ISAS Director: ______________________________________ Date:____________

Sub-Program Element:____

EFFECTIVENESS VARIABLE	WEIGHT	AVERAGE VALUES (Each alternative)	ALTERNATIVE						
			A	B	C	D	E	F	G
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									

WEIGHTED EFFECTIVENESS SCORE =

A	B	C	D	E	F	G

FORM 30 GUIDE: ESTIMATING EFFECTIVENESS OF ALTERNATIVE PROGRAM ELEMENT SYSTEMS

Input for completing Form 30 is Form 29 - *Summary Description of Alternative Systems*. If you do not have this form, contact the ISAS Director, and he will provide it for you. *A separate Form 29 is required for each alternative.*

In completing an estimate of the effectiveness of the alternative Program Element systems that have been generated, do these things:

1. Review the *narrative description* of the alternative system in the first section of Form 29.
2. Review the *itemized description* of:
    - Sequence of Sub-Program Element Areas
    - Presentation Activities
    - Time frame of the alternative
    - General performance criteria
    - General management techniques.
3. Using *Form 30* as a recording sheet, estimate the effectiveness of the Sub-Program Element alternative described on Form 29 by:
    a. Considering the alternative against the variables listed in the EFFECTIVENESS VARIABLE column.
    b. Choosing the *level of effectiveness* in the VALUE SCALE column that best describes the effectiveness of the alternative in terms of each Effectiveness variable listed.
    c. Entering the *numerical value* that corresponds to the verbal indicator selected in the ALTERNATIVES column, under the letter designating the alternative being rated.

Example:

EFFECTIVENESS VARIABLE	VALUE SCALE	ALTERNATIVES						
		A	B	C	D	E	F	G
1. Presentation Activities	5-Desirable 4- 3- 2- 1-Undesirable	1	5					

In the example, the expert considered the presentation activities described in Alternative A *undesirable* in effectiveness and entered a rating of *1* in the appropriate column. He rated the presentation activities presented in Alternative B *desirable* in their effectiveness, and so indicated by entering a *5* in the appropriate column.

4. Be sure to enter a numerical value for *each variable* AND to consider *all of the variables* against each Sub-Program Element alternative described on a Form 29.

RETURN ALL FORM 29's AND ALL COMPLETED FORM 30's TO THE ISAS DIRECTOR FOR FURTHER ANALYSIS.

FORM 30
PANEL OF EXPERTS

ESTIMATED EFFECTIVENESS OF ALTERNATIVES

ISAS Title and Identification Number: ____

____

Panel Member's Name: ______________________ Sub-Program Element: ______________________

EFFECTIVENESS VARIABLE	VALUE SCALE	ALTERNATIVES						
		A	B	C	D	E	F	G
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

ISAS GUIDE 6

Developing Cost Estimates for Alternative Systems

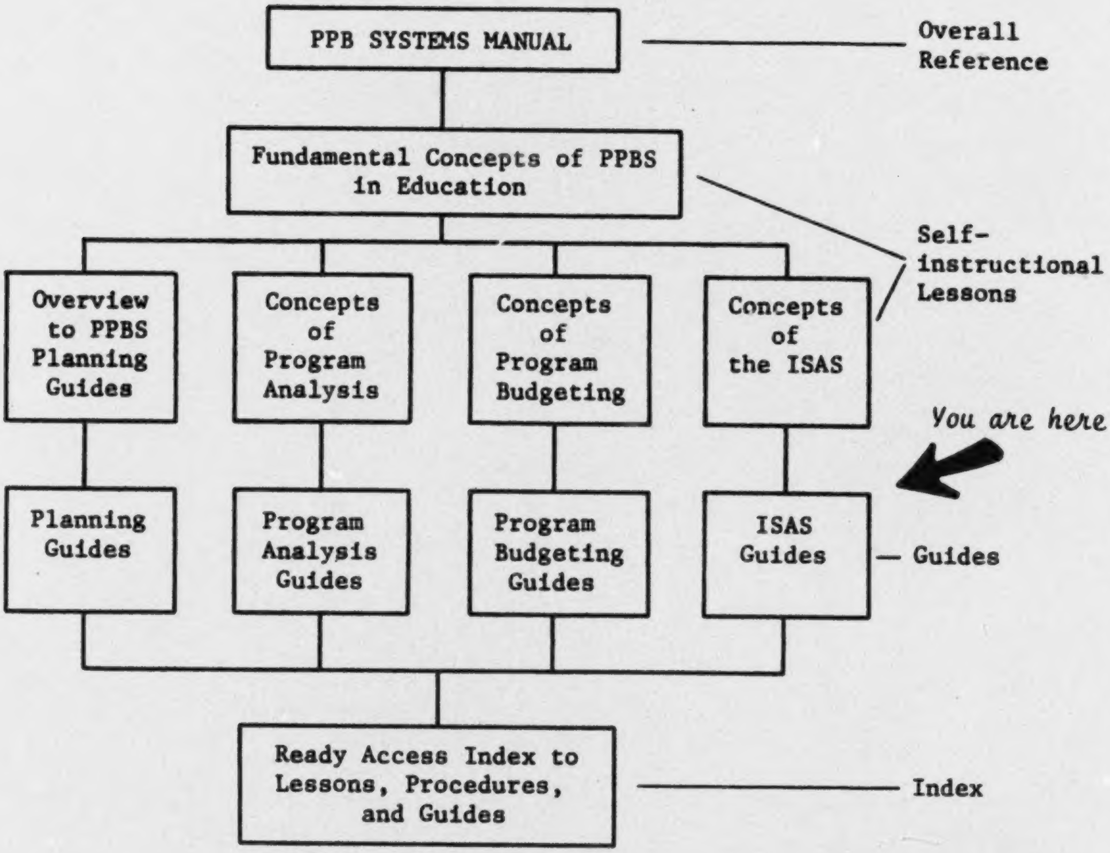
COMPONENT 15
ISAS Director

COMPONENT 16
ISAS Task Force

COMPONENT 17
School Business Administrator

Guide 6

WESTERN NEW YORK PPBS TRAINING PACKAGE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PURPOSES OF THE GUIDES

This is one of seven *ISAS guides*, which correspond to the seven ISAS procedures (36-42) specified in the PPBS Manual. Their purpose is to *aid in the accomplishment of those procedures* by providing step-by-step guidance to the various roles involved. This guidance takes the form of instructions, diagrams, examples, checklists, worksheets, and samples, depending on the nature of the procedure being guided.

All ISAS guides are subdivided into various *components*, which are intended for use by *specific roles* working within the procedure. The guides and components are organized as follows:

ISAS GUIDE #	ISAS PROCEDURE #
1	36 - Identifying Appropriate Program Element Component 1 - Program Committee Component 2 - Program Element Coordinator Component 3 - Program Committee Program Director Educational Planning Council
2	37 - Organizing the ISAS Component 4 - Program Director Component 5 - ISAS Director
3	38 - Setting Sub-Program Element/Area Objectives Component 6 - ISAS Director Component 7 - ISAS Task Force Component 8 - Program Director
4	39 - Specifying Alternatives to Achieve Sub-Program Element Objectives Component 9 - Program Element Coordinator Component 10 - ISAS Task Force Component 11 - ISAS Director
5	40 - Estimating Potential Benefits for Alternative Systems Component 12 - ISAS Task Force Component 13 - Panel of Experts Component 14 - ISAS Director
6	41 - Developing Cost Estimates for Alternative Systems Component 15 - ISAS Director Component 16 - Program Director Component 17 - School Business Administrator
7	42 - Selecting an Alternative System for Implementation Component 18 - ISAS Director

Component and role are identified in the upper right-hand corner of the guide pages.

FORM 31: QUANTITY OF RESOURCES REQUIRED BY COST CATEGORY

District ______________________________ Date ______________

Person Completing ____

ISAS Number ________, ______________________________ Program Alternative System A (or B or C).

Category[1]	Number of Items by Year[2]				
	Year 1	Year 2	Year 3	Year 4	Year 5
PERSONNEL					
Administrators					
Teachers					
Teacher Aides					
Consultant					
Maintenance					
Clerical					
EQUIPMENT					
Desks					
Chairs					
Movie Projectors					
Tape Recorders					
TV Sets					
Other					
SUPPLIES					
Books					
Paper					
Other					
OTHER					
Transportation					
Training					
Building Space					

---

[1] Items listed below are illustrative only.

[2] Include only those items which are additional.

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ISAS PROCEDURE 41: DEVELOPING COST ESTIMATES FOR ALTERNATIVE SYSTEMS

FORM 31 GUIDE

Before attempting to construct a Form 31 - *Quantity of Resources Required by Cost Category,* the ISAS Director should make certain that he has all required input documents. These include:

INPUT	PROVIDED BY
• Form 29, *narrative summary* description of *all* Program Element alternatives being considered.	• Program Director
• Form 29, *itemized description* of characteristics of *all* Program Element alternatives being considered.	• Program Director

Working from the input documents specified, the ISAS Director must construct a Form 31 - Quantity of Resources Required by Cost Category - for each Program Element alternative being considered.

Item 1

Enter the current date, district in which the ISAS is being performed, and the name of the ISAS Director (or delegate constructing the Form 31).

Item 2

Identify the ISAS being conducted by identification number, title, and the alphabetical designation of the alternative. This information is available on the headings of the Form 29's submitted as input.

Item 3

The first category to be considered is *Personnel.* How many man-days will be required for the implementation and operation of the Program Element alternative being analyzed? In what personnel roles are those man-days required?

9-month man-year	180 man-days
12-month man-year	250 man-days

Remember that you are estimating *only* the man-days required by the Program Element alternative being analyzed. For the purposes of the estimate on Form 31, it makes no difference if the personnel are currently on the staff or are to be hired to fill a specific role.

To determine the man-days required per role, carefully review the *narrative summary* of the alternative provided in the first section of the Form 29.

This will enable identification of the personnel roles required -- administrator, teacher, clerical, "other," etc.

- Next, the number of *man-hours per role* must be estimated. This is directly contingent upon the size of the target population and the objectives of the Program Element alternative. How many man-hours will be required, in each role identified, to achieve the stated objectives with the target population specified? The size and description of the target population, and the objectives of the Program Element alternative, are found in the second part of the *Form 29* -- the itemized description of the characteristics of the Program Element alternative.

- Enter the number of man-hours required in each role for each year of operation of the Program Element alternative. "Other" allows for description of any special personnel roles not listed on the Form 31.

Item 4

The second category considered on Form 31 is *Equipment*. Again, the task of the ISAS Director is to estimate the subcategories and quantity of equipment required by the Program Element alternative being analyzed. Input for the estimate is the same as for Personnel -- Form 29, narrative description and itemized characteristics of the alternative.

- ONLY ADDITIONAL EQUIPMENT REQUIRED BY THE PROGRAM ELEMENT ALTERNATIVE IS TO BE ESTIMATED. That which is already on hand and available for use *is not* a cost factor.

Example: If the Program Element requires use of *tape recorder listening stations* accommodating *six students per station* in the currently operating 7th Grade Remedial Reading Program, it *is not* necessary to estimate the classrooms, desks, chairs required. They are available for use in the current program. It *is necessary* to determine the number of tape recorder listening stations required (number of students ÷ 6), and finally, the number actually needed (number required - number on hand).

If, on the other hand, the Program Element alternative required *establishing additional classes* in a new course of study, then the additional classrooms, desks, etc. would become a cost consideration. Again, the number already on hand and available for use would be *subtracted* from the number required by the Program Element alternative.

- Year 1 estimates should indicate "start-up" equipment necessary to get the Program Element underway. In Year 2, and subsequently, some of the Year 1 initial purchases will be on hand and need not be included in that year's estimate.

- "Other" allows for inclusion of equipment in any special subcategories required by the Program Element alternative *not* provided for in the listing of general subcategories.

Item 5

The third category, *Supplies,* should be completed just as Item 4 was completed. Only additional supplies needed should be listed in the subcategories -- not those already on hand. Any special supplies, such as A-V components other than movie projectors, tape recorders, and TV sets, should be identified in the "Other" subcategory.

Item 6

The fourth and final category of the Form 31, *Miscellaneous*, requires careful review of the Form 29 input if it is to be accurately estimated. Any Program Element components, activities, or support that *does not* appear in the first three categories must be identified and estimated as to quantity under the Miscellaneous category.

CONSTRUCT A COMPLETE FORM 31 FOR *EACH* PROGRAM ELEMENT ALTERNATIVE.

SUBMIT THE COMPLETED FORM 31's TO THE ISAS TASK FORCE FOR REVIEW.

FORM 31 REVIEW CHECKLIST

- Review each item on the *Form 31's* submitted to you by the ISAS Director against the requirements stated in the CRITERIA column of this checklist.
- Indicate with a check mark in the appropriate column whether the item is ACCEPTABLE or MUST REVISE.
- For all items rated "must revise," indicate the revisions required in the REVISION column.

ITEM	CRITERIA	ACCEPT-ABLE	MUST REVISE	REVISIONS
1	Date, District, and estimator identified.			
2	ISAS number, title, and alternative ID letter indicated.			
3	Personnel estimated for entire time frame of alternative; all required roles estimated; estimates reasonable for objectives and population.			
4	Equipment estimated for total time frame of alternative; only additional supplies needed estimated; quantities reasonable.			
5	Supplies estimated for total time frame of alternative; only additional needs estimated; estimates reasonable.			
6	Miscellaneous estimate includes all alternative's requirements not included in Items 3-5; quantities reasonable.			

USE THE NOTES ENTERED IN THE REVISIONS COLUMN TO REVISE THE FORM 31. FORWARD REVISED FORM 31's TO SCHOOL BUSINESS ADMINISTRATOR.

FORM 32: COSTS OF RESOURCES BY COST CATEGORY

District ______________________________ Date ____________

Person completing ______________________________________

ISAS Study Number ___________, ___________________________ Program
Alternative System A (or B or C)

Category	Cost of Items by Year[1]				
	Year 1	Year 2	Year 3	Year 4	Year 5
PERSONNEL					
Administrators					
Teachers					
Teacher Aides					
Consultants					
Maintenance					
EQUIPMENT					
Desks					
Chairs					
Movie Projectors					
Tape Recorders					
TV Sets					
SUPPLIES					
Books					
Paper					
OTHER					
Transportation					
Training					
TOTAL					

---

[1] Cost of resources by alternative as reported on Form 31.

FORM 32 - 33 GUIDE

As *School Business Administrator*, your tasks in an Instructional Systems Analytical Study (ISAS) are to:

1. Translate the quantity of resources required by cost category for each alternative Program Element system (Form 31) into *actual costs by cost category* for each alternative.
2. Compute and record *total costs for each* Program Element alternative.

   - Your first task is accomplished by completing Form 32 - *Cost of Resources by Cost Category.*
   - Your second task is accomplished by completing Form 33 - Summary of Costs for each Alternative System.

Before going any further, make sure that you have the revised Form 31, Quantity of Resources Required by Cost Category, for *each* of the Program Element alternatives under consideration. If not, inform the ISAS Task Force and request that any missing or unrevised Form 31's be provided.

CONSTRUCTING A FORM 32

In translating the quantities of resources per cost category provided for each alternative Program Element by the ISAS Director and Program Director on Form 31, several methods are feasible. Among them:

- Catalog Price

  Actual dollar cost of the man-hours per personnel category, various items of equipment, supplies, and any miscellaneous cost items can be determined from district personnel and purchasing offices, and from distributors of the various equipment and supplies.

- Analogous Program

  The cost breakdown of a Program Element of similar scope and content to the Program Element alternative being costed can be carefully examined for any helpful cost information that is relevant to the Form 32 being constructed.

- Consultation

  If catalog price and/or analogous program data are not available for the Program Element alternative, or any of its categories, experts can be consulted to determine various costs. District or state ITV personnel, for example, should be [illegible] to quickly provide costs on video tape recorders or closed-cir[illegible] TV systems.

The method or methods that you use in constructing the Form 32's for various Program Element alternatives will depend upon your particular situation, data available, etc. Whatever the method, these rules apply:

1. The Form 32 - Cost of Resources by Cost Category - must be *complete* for each alternative.
2. Costs must be determined in each category for the *same time frame*. If Alternative A costs are for operation of the Program Element for three years, all other alternatives must be costed for three years.
3. Costs for each alternative should be determined to a *similar level of specificity*. If costs for one alternative are roughly estimated from those of a similar Program Element, then the costs of all other alternatives should reflect a rough estimate. Conversely, if one alternative is precisely costed by manpower and catalog price, the others should be equally as specific.

These rules assure that the costs generated via Form 32, and summarized on Form 33, will allow a *fair comparison* of relative total costs.

Item 1

Enter the current date, district in which the ISAS is being performed, and the name of the ISAS Director (or delegate constructing the Form 31).

Item 2

Identify the ISAS being conducted by identification number and title. Underline the alphabetical designation of the particular Program Element being costed. This information is available on the heading of the Form 31.

Items 3-5

In each cost category, and for all subcategories, translate the *quantity* of resources indicated on the Form 31 to *actual dollar costs*.

Example:

If the Form 31 indicates -

Then
COMPUTE

And THEN the *Form 32* shows an actual cost of -

	Year 1	Year 2	Year 3			Year 1	Year 2	Year 3
PERSONNEL Administrators					PERSONNEL Administrators			
Teachers	*180*	*180*	*180*	x man-day rate =	Teachers	*$7,000*	*$7,650*	*$8,100*
Teacher Aides	*90*	*90*	*90*	x man-day rate =	Teacher Aides	*$1,200*	*$1,350*	*$1,500*
Consultant	*40*		*20*	x man-day rate =	Consultant	*$2,400*		*$1,160*
Maintenance					Maintenance			

FORM 33: SUMMARY OF COSTS FOR EACH ALTERNATIVE SYSTEM

Date ______________________________

District ______________________________

Person completing ______________________________

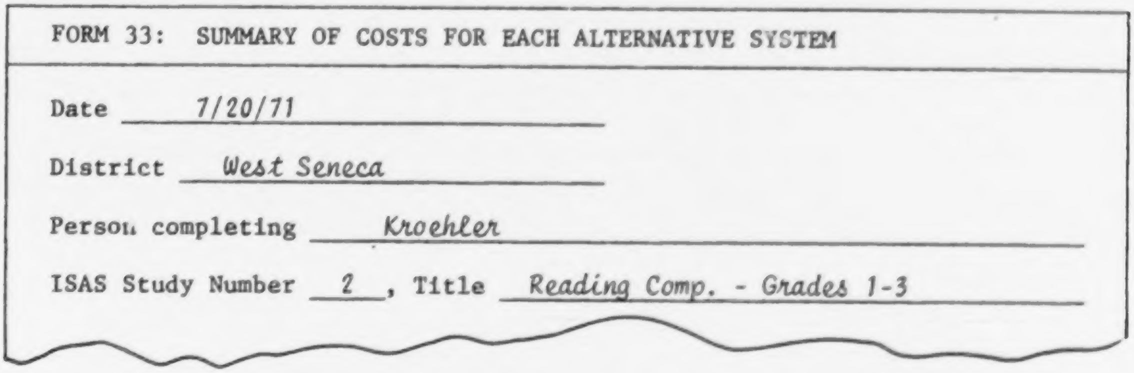
ISAS Study Number __________, ______________________________ Program

System	Costs					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Alternative A						
Alternative B						
Alternative C						

CONSTRUCTING A FORM 33

After a Form 32, *Cost of Resources by Cost Category*, has been completed, the annual costs and total costs of each Program Element alternative are *summarized* on a Form 33. It is simply a recording form which will serve as summary input to a cost-effectiveness selection made later in the ISAS procedures.

Identification data is entered on the Form 33 as follows:



FORM 33: SUMMARY OF COSTS FOR EACH ALTERNATIVE SYSTEM

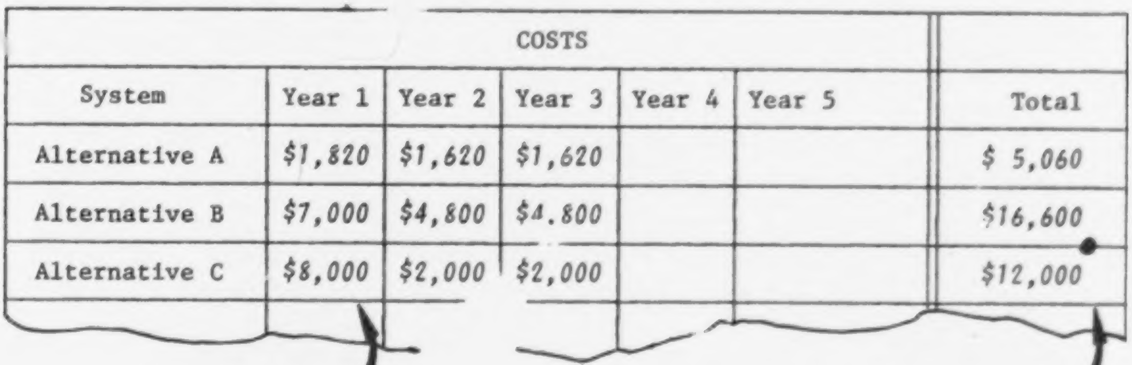
Date 7/20/71

District West Seneca

Person completing Kroehler

ISAS Study Number 2, Title Reading Comp. - Grades 1-3

The annual total costs in all categories, and the total alternative cost, are entered on the Form 33 as follows:



	COSTS					
System	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Alternative A	$1,820	$1,620	$1,620			$ 5,060
Alternative B	$7,000	$4,800	$4.800			$16,600
Alternative C	$8,000	$2,000	$2,000			$12,000

Annual Cost -
all cost categories

Total cost of
Program Element
alternatives

UPON COMPLETION OF THE FORM 33, FORWARD IT AND THE COMPONENT FORM 32's TO THE ISAS DIRECTOR.

ISAS GUIDE 7

Selecting an Alternative System for Implementation

COMPONENT 18
ISAS Director

Guide 7

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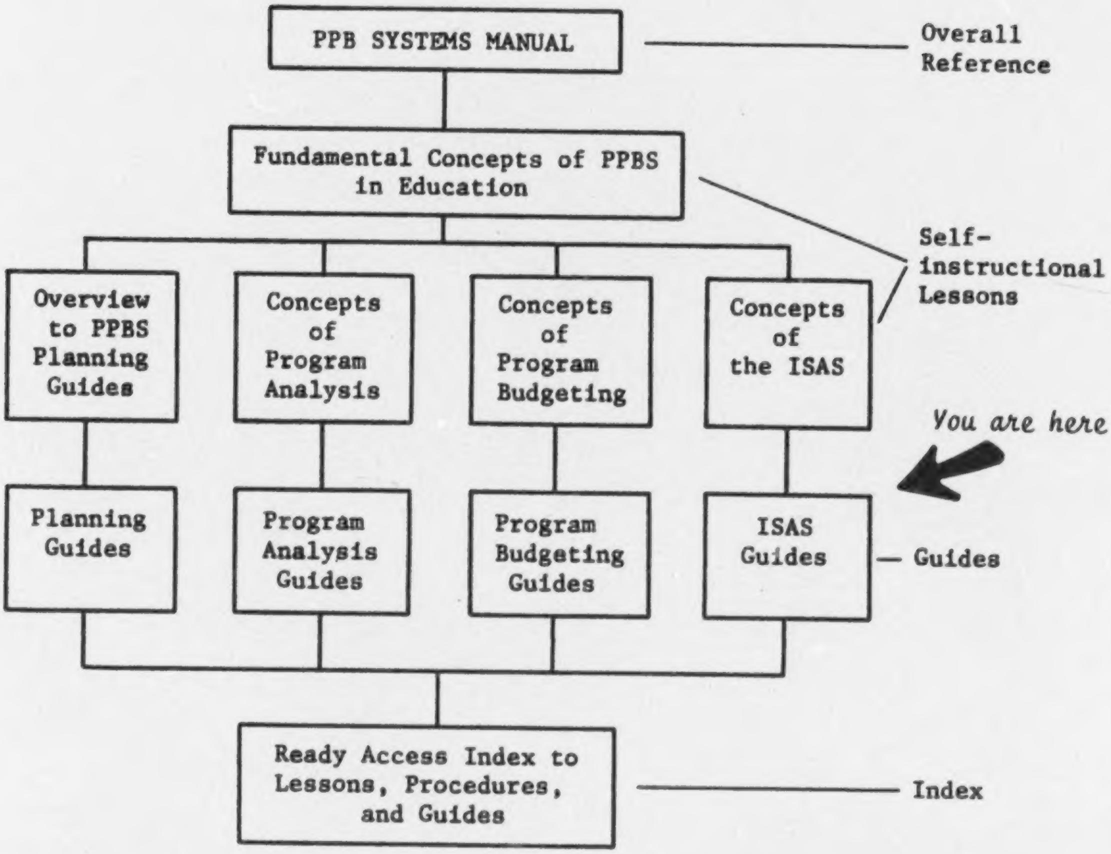
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7	42 - Selecting an Alternative System for Implementation Component 18 - ISAS Director

Component and role are identified in the upper right-hand corner of the guide pages.

FORM 34 and C-E GRAPH GUIDE

The ISAS Director's tasks in Procedure 42 are as follows:

1. Construct Form 34 - Summary of Costs and Effectiveness.
2. Plot cost and effectiveness data from Form 34 on annual and total C-E graphs.
3. Enter maximum cost and minimum effectiveness constraints on C-E graphs.
4. Submit graphs to ISAS Task Force for selection of *one* Program Element alternative for implementation.

To accomplish these tasks, the following input is required per task:

TASK	INPUT	SOURCE
1 and 2	Form 33 - *Summary of Costs for Each Alternative System*	School Business Administrator
	Form 32 - *Costs of Resources by Cost Category* (for each alternative)	School Business Administrator
	Form 30 - *Estimated Effectiveness of Alternative Systems*	Program Director
	Summary Form 30 - *Average Effectiveness Score of Each Alternative System*	Program Director
3	*Maximum cost constraints*	District Budget Personnel
	Minimum effectiveness constraints - (Items 4 and 5, Form 29)	Program Director
4	*Products of 1-3*	--

> Make sure you have all required input at hand prior to attempting any of the assigned tasks. If not, request the missing data from the role listed in the SOURCE column.

FORM 34: SUMMARY OF COSTS AND BENEFITS

Date ______________________________

District ______________________________

Person completing ______________________________

ISAS Study Number ______, ______________________________ Program

---

Instructions:
1. Indicate the Instructional Systems Analytical Study Number (ISAS) and Program.
2. Obtain benefits for each alternative system from Form 33A.
3. Obtain total cost figures for each alternative from Form 33.

System	Year 1		Year 2		Year 3		Year 4		Year 5		Total	
	Cost $	Effectiveness	Cost $	Effectiveness	Cost $	Effectiveness	Cost $	Effectiveness	Cost $	Effectiveness	Cost $	Effectiveness
Alternative A												
Alternative B												
Alternative C												

CONSTRUCTING A FORM 34:

Working from the *completed Form 33* provided by the School Business Administrator, complete the Form 34 as follows:

Enter all required identification data in the spaces provided:

FORM 34: SUMMARY OF COSTS AND EFFECTIVENESS

Date *7/25/71*

District *Tunxis*

Person completing *Munroe*

ISAS Study Number *3* Title *College Prep Math, Grades 9-12*

Again from the *Form 33*, enter *annual costs* and *total costs* of each alternative. From the *Summary Form 30*, enter the *average effectiveness* score of each alternative in the "Year" and "Total" column.

System	Year 1		Year 2		Year 3		Total	
	Cost $	Effective	Cost $	Effective	Cost $	Effective	Cost $	Effective
Alternative A	*1,820*	*19.3*	*1,620*	*19.3*	*1,620*	*19.3*	*5,060*	*19.3*
Alternative B	*7,000*	*18.0*	*6,000*	*18.0*	*6,000*	*18.0*	*19,000*	*18.0*
Alternative C	*8,000*	*16.5*	*2,000*	*16.5*	*2,000*	*16.5*	*12,000*	*16.5*

Annual cost - Form 33

Average effectiveness score - Summary Form 30

Total cost - Form 33

THE COMPLETED FORM 34 SERVES AS DIRECT INPUT TO YOUR NEXT TASK - CONSTRUCTING COST-EFFECTIVENESS GRAPHS.

NUMBER OF GRAPHS TO BE CONSTRUCTED

The *number* of Cost-Effectiveness Graphs that are to be constructed depends on the time frame of the Program Element under study. *One C-E graph* is constructed for *each year* of the projected operation of the Program Element, and a *summary graph* is constructed, reflecting *total costs* and *effectiveness* of the Program Element over the total operational time frame.

For example, if the Form 34 indicates *three operational years* (see the example on the preceding page), the following C-E graphs would be constructed:

- Year 1 C-E Graph - Showing the costs and effectiveness of *each alternative* for the first year of operation.
- Year 2 C-E Graph - Showing the costs and effectiveness of *each alternative* for the second year of operation.
- Year 3 C-E Graph - Showing the costs and effectiveness of *each alternative* for the third and final year of operation.
- Total C-E Graph - Showing the *total costs and effectiveness of each alternative* over the operational time frame of the Program Element.

Graphs for each operational year, as well as for the total time frame, will disclose such helpful decision-making data as:

- Alternatives with high start-up cost in Year 1 but with relatively low maintenance costs in subsequent years.
- Alternatives with low start-up costs in Year 1 but with increasing maintenance costs in subsequent years.

The guidelines on the following page are applicable to the construction of all graphs required. Obviously, when constructing an annual graph, use the data presented on Form 34 for that particular year; when constructing a total or summary graph, use the data presented in the "Total" column on the Form 34.

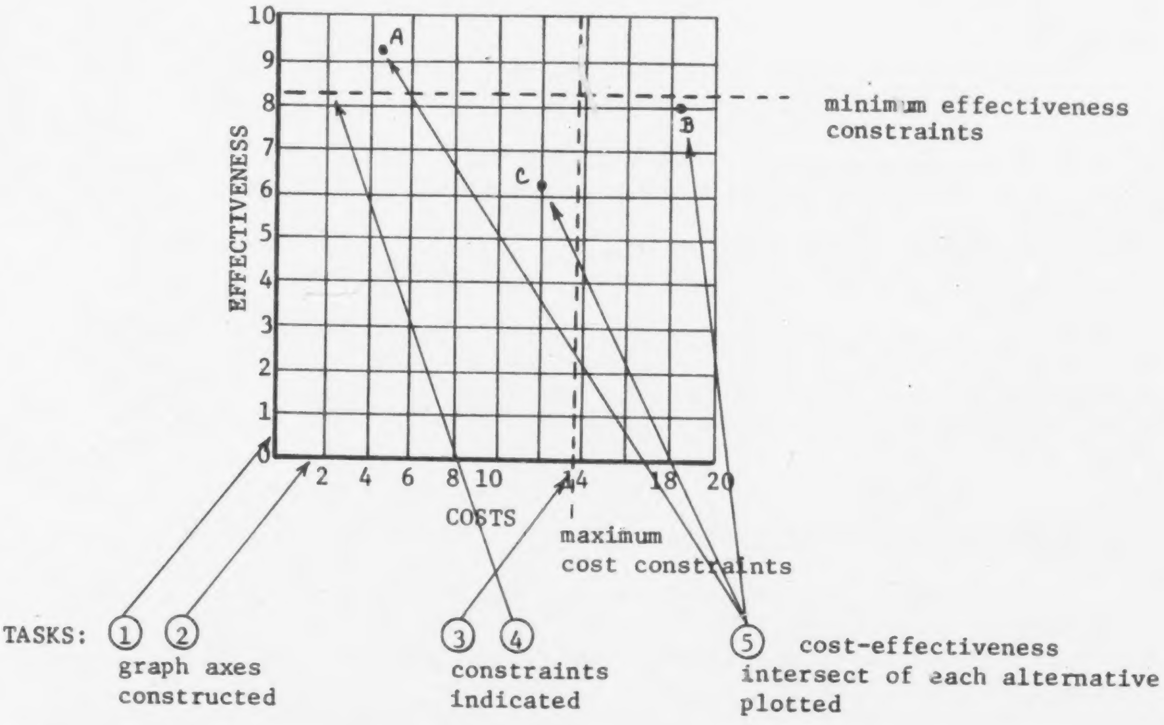
CONSTRUCTING A COST-EFFECTIVENESS GRAPH

The cost-effectiveness graph that you are to construct is the presentation vehicle for display of the relative levels of cost and effectiveness of the various Program Element alternatives being considered for implementation by the ISAS Task Force.

The steps involved in constructing the C-E graph are as follows:

1. Construct a *horizontal graph axis* divided into cost units that allow plotting of all alternative total costs. Label "COSTS."
2. Construct a *vertical graph axis* divided into equivalent increments allowing plotting of effectiveness scores from 1-10. Label "EFFECTIVENESS."
3. Indicate *maximum cost constraint* by drawing a broken vertical line up the graph from the point of maximum allowable cost on the COST axis.
4. Indicate *minimum acceptable effectiveness constraint* by drawing a horizontal line across the graph from the point of minimum acceptable effectiveness on the effectiveness axis.
5. Plot the *cost* and *effectiveness* intersect of each Program Element alternative from the data on Form 34. Indicate the intersect with a heavy dot and label with the alphabetic designator of the alternative being plotted.

Example: For graph input, see sample Form 34, earlier in this guide. This graph shows total cost figures.



PRESENT THE COMPLETED C-E GRAPHS TO THE ISAS TASK FORCE.

W.N.Y.
PPBS
PACKAGE
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PROGRAM BUDGETING CONCEPT LESSON AND PERFORMANCE GUIDES

WESTERN
NEW YORK
PPBS MODEL

An Operational Model for the Application
of Planning-Programming-Budgeting Systems
to Local School Districts

Post-Pilot-Test Version

PROGRAM BUDGETING CONCEPT LESSON AND PERFORMANCE GUIDES

Prepared by

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Frank Ambrosie, Operations Manager, Training Material Development

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Buffalo, New York 14225
Telephone: 1-716-634-6800

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PPBS AND THE SCHOOL BUSINESS OFFICE: CONCEPTS AND PROCEDURES

--A Self-Instructional Lesson--

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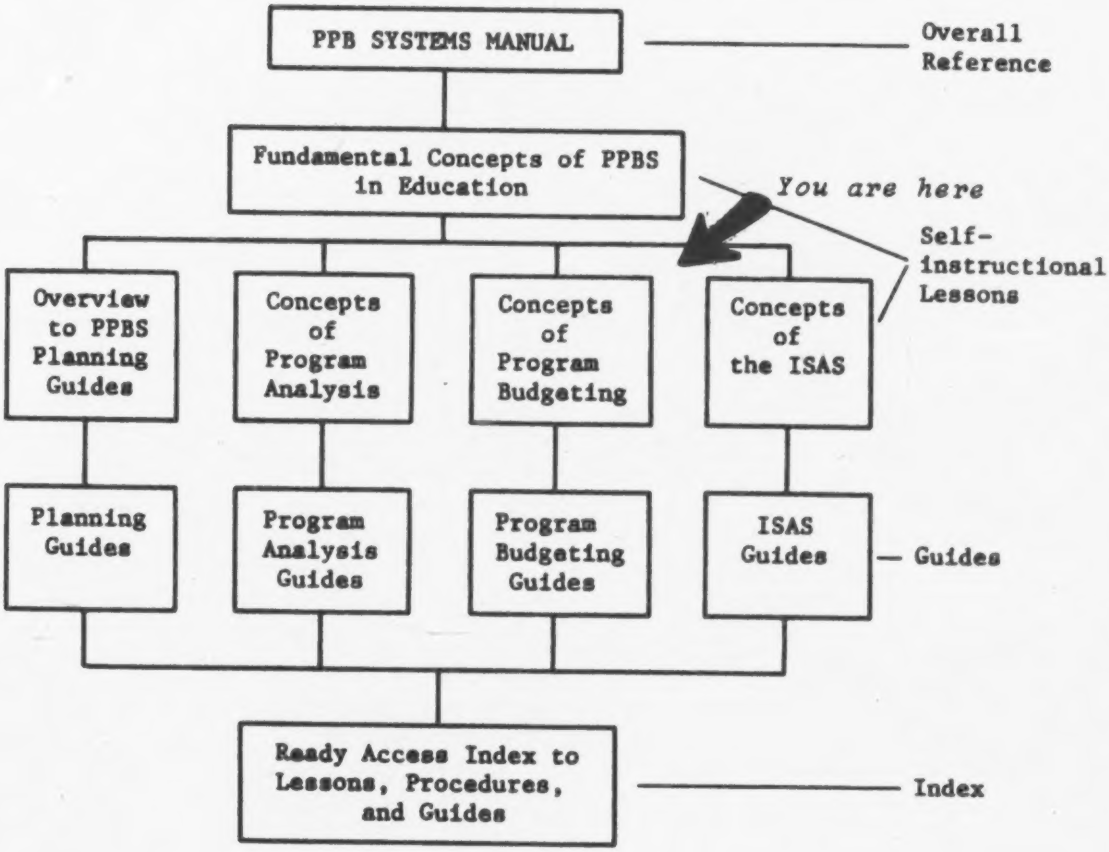
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INTRODUCTION

This self-instructional lesson is designed to present certain concepts that are *basic* to the Program *Budgeting* function of the Western New York PPBS Model. The general purposes of the lesson are as follows:

1. To present PPBS as a "theory of budgeting," and to *contrast it* to current prevailing budgetary theories and practices.
2. To establish *specific concepts* that are basic to *Budgeting Procedures 30-35.*
3. To place the Budgeting function in its *proper context* in the PPBS process, and show its *interrelation* with the Planning, Programming, and System Evaluation functions.
4. To demonstrate the *role of the Business Office* in performing the Budgeting function, *and* in the total PPBS process.

The *first section* of this lesson, consisting of the first seven pages, addresses the first purpose -- *presenting PPBS as a theory of budgeting.* This is done to demonstrate how PPBS, as an alternate budgeting approach, offers *greater potential* for responsive, effective allocation of funds than the current prevailing theories.

The *second section* of the lesson, including pages 8 to 19 focuses on *how* the Budgeting function of the PPBS process is accomplished. It deals with the *specific Budgeting procedures* contained in the Western New York PPBS Model, and their implications for purposes two, three, and four described above.

The term "Self-instructional" simply means that the lesson is designed to present content in an *individualized, self-paced manner.* It is our way of talking with you about the concepts of Program Budgeting. The lesson works best if you follow the directions literally, filling in the blank or checking a multiple-choice answer, as indicated. Work at the pace most comfortable for you.

SECTION 1: PPBS AS A THEORY OF BUDGETING

PPBS is a theory of budgeting.

The B in PPBS relates to specific procedures.

The PPBS process can accurately be described as a *theory of budgeting.* Within the total process, there is a specific *Budgeting function,* which represents a synthesis of the *Planning* and *Programming* functions. As a theory of budgeting, PPBS addresses the complex problems of allocating available resources among competing educational programs on the basis of where the educational needs are.

PPBS results in a Program Budget focusing on purposes of expenditure.

PPBS aids educational administrators in reporting Program expenditures, requesting public funds, planning new Programs, establishing priorities, evaluating Programs, and communicating Program accomplishments to an increasingly aware and involved public. This is because the *Program Budget,* unlike the traditional *function-object* budget which is concerned with items of expenditure, focuses on the *purposes* and *planned results* of expenditure on various items.

Budgeting is essentially a decision-making process.

There is not enough money. That is *why* the public budgeting process exists -- because our desires constantly exceed our resources. What this basic budgeting truth means is that the fundamental purpose of the Budgeting process is effective allocation of scarce resources among competing demands.

A Program Budget documents budgetary decision making.

Why allocate funds for one Program rather than another? How are such budgetary decisions communicated to the public in terms that they will find meaningful? PPBS, as a theory of budgeting, responds to these basic questions by providing an optimal model for planning and decision making. The PPBS process makes decision making explicit, and assures the educational administrator of valid alternatives from which to choose. The specific Budgeting function of the PPBS process can *only be of value* if it *flows out of* the Planning and Programming functions. The *Program Budget* is a record of the budgetary decisions that have been made in the Planning and Programming phases of the PPBS process.

All PPBS functions are relevant - not just the "B".

All PPBS functions and procedures described in the Western New York PPBS Model are applicable to "the way things are done" in the district's Business Office. Obviously, the implications for change are great.

How are budgetary decisions made?

Underlying every budgetary decision is the question *"What was the rationale used to make that decision?"* The educational administrator is often asked by his Board of Education, or the recalcitrant voter, *"How do you justify putting funds into Program A rather than Program B?"* Such questions are not easy to answer. Perhaps the educational administrator replies by saying that such decisions are based on his *best professional judgment*. Such an answer implies that a large dose of intuition is part of the decision-making process, and consequently, there may be lingering doubts that the area of expenditure chosen was the proper place to allocate funds in order to obtain the desired results.

Opportunity cost.

Obviously, every time a dollar is spent on a commodity, the *opportunity* to spend that dollar on another commodity is lost. Every budgetary decision has what the economists refer to as an *opportunity cost* attached to it. Ideally, opportunity costs are *minimized* if the budgetary decision results in the best possible return for the dollar expended.

RULE: Return for any expenditure must be great enough to overcome the sacrifices made in *not choosing* other alternatives.

The need for a *theory of budgeting* is clearly indicated. Three principles which serve as a basis for such a theory can be stated:

Budgeting principles.

1. A comparison of the relative merits of the alternative use of funds.
2. An analysis of the additional values to be derived from additional expenditures for each alternative.
3. A comparison of the relative merit of each alternative in terms of its relative effectiveness in achieving a common objective.

The PPBS process is an *alternative Budgeting approach*. As we shall see, it is consistent with these three basic theory-of-budgeting principles.

ALTERNATIVE BUDGETING COMPARED TO OTHER METHODS

What are the *alternatives* to the alternative budgeting approach (PPBS)? There are several in common usage today. Essentials of each are presented below for a quick comparison.

OPEN-ENDED BUDGETING

Represents isolated "best guess" for optimum Program.

A Program Director makes a *single budget estimate* for what he perceives as an *optimum Program,* and presents that Program and cost estimate for funding. It represents his "best guess," and does *not* provide sufficient knowledge for determining the effect of any cuts in the requested budget. The value resulting from the Program cannot be compared with *other Programs,* or *alternatives* to the optimum Program described.

FIXED-CEILING BUDGETING

Budget ceilings set before plans are made.

Budget ceilings are applied to budgets for *all Programs prior to actual Program planning,* and *without consideration of priorities and needs* of the various Program Areas. This requires *pre-judging* the merits of the various Programs. An example: Assigning $2.00 per student for supplies for all schools and Programs operating in the district.

ITEM-BY-ITEM CONTROL

No consideration of expenditure on alternatives.

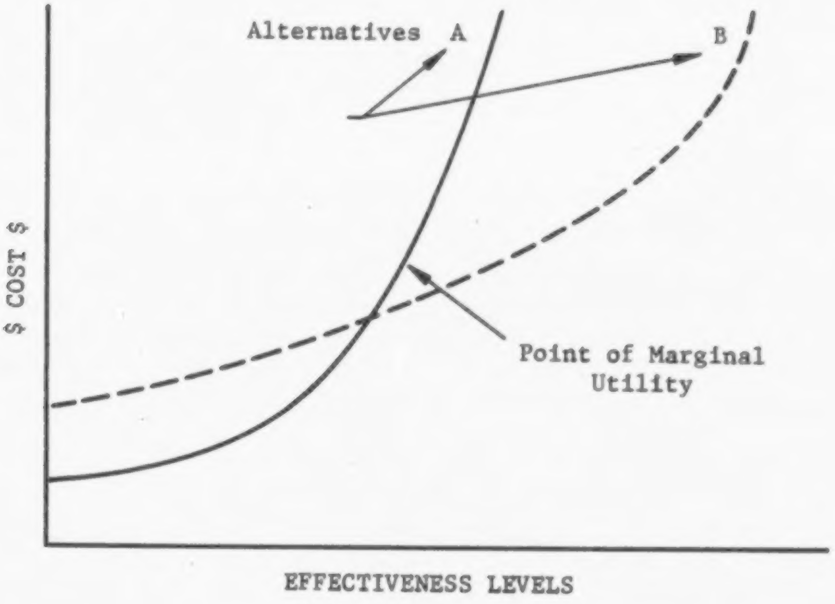
Each individual item requested by the Program Director is reviewed, and either accepted, decreased in quantity, or rejected. The relative desirability of item categories *is not examined,* nor is the *relative value* of alternative Program plans and their required items.

PPBS benefits

Contrasted to these current budgeting practices, the *alternative budgeting approach (PPBS)* offers several distinct advantages:

- The Program Director is an advisor of alternatives rather than the champion of a particular plan.
- The decision-maker, at all levels, is free to determine how to get the most for his money, no matter how much he wants to spend.
- Less authoritarian -- budget decisions are based on the rational analysis of proposed alternatives rather than on the authority of the supervisor's position.

COST EXPRESSED AS A FUNCTION OF EFFECTIVENESS



This graph shows a plot of *dollar cost* versus *effectiveness levels*.

NOTE:
- Two different alternatives are being compared (Principle 1, page 3).
- Additional value (effectiveness) resulting from additional expenditure for each alternative is displayed (Principle 2, page 3).
- Comparison can be made of each alternative's effectivness in achieving a common objective (Principle 3, page 3) for a given expenditure of funds.

Moving up the curve for Alternative A, a point is reached where any additional expenditure of funds will not result in much improvement in the effectiveness level. We have labeled this point on the graph as the *point of marginal utility*, and it is that point where any *additional expenditure* produces only a *marginal return*.

As an example, *four tires* on an automobile are a *necessity*. A fifth tire isn't a necessity, but is a good investment in case of a blow-out, theft, etc. A sixth tire for an automobile is simply a nuisance.

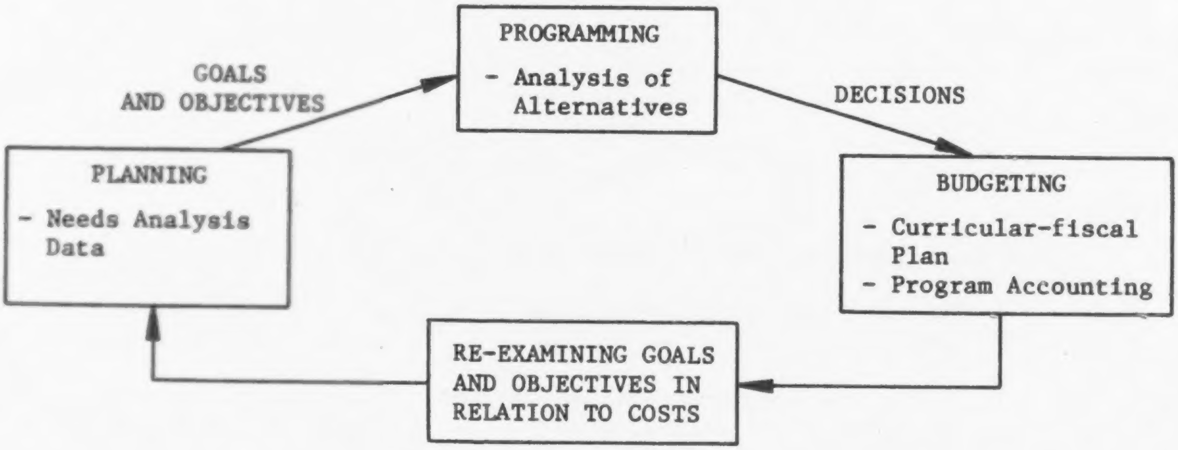
In other words, the *point of marginal utility* is the purchase of the fifth tire. Any expenditure for tires beyond that point offers marginal or no return.

THE ALTERNATIVE BUDGETING APPROACH AND PPBS

We have stated three principles for a *theory of budgeting:*

1. It must contain a comparison of alternatives.
2. It must contain an analysis of the value to be derived from additional expenditures for each alternative.
3. It must contain a comparison of the effectiveness of each alternative in achieving a common objective.

The PPBS process meets these requirements as a theory of budgeting. It is based on the alternative budgetary approach to decision making and policy making. Its focus is not solely on the fiscal aspects of budgeting, but rather on the goals of the Budgeting process. It relates the accomplishments of these goals to the investment in resources.


PROGRAMMING
- Analysis of Alternatives
GOALS AND OBJECTIVES
DECISIONS
PLANNING
- Needs Analysis Data
BUDGETING
- Curricular-fiscal Plan
- Program Accounting
RE-EXAMINING GOALS AND OBJECTIVES IN RELATION TO COSTS

- Planning - A process of diagnosis.
- Goals and Objectives - Results desired, based on diagnosis of the problem.
- Programming - Indicated by goals and objectives; an analysis of alternative Programs for achievement of common goals or objectives; the bridge between Planning and Budgeting.
- Budgeting -- A "snapshot" at a point in time of the decisions that have been made; considers Program costs over time, and relates costs to results.
- Re-examining Goals - Continual review of the total process.

PPBS AND THE BUSINESS OFFICE

We have presented PPBS as an *alternative budgeting approach*, and have shown how it meets the three general requirements for a *theory of budgeting*. This provides the basis for examining the role of the Business Office in accomplishing the *specific Program Budgeting procedures* described in the Western New York PPBS Model.

Rapid and pervasive change is a fact in education today, and that change will continue and become increasingly complex. Schools, and School Business Administrators, must explore those management and decision-making techniques which have proved effective in other fields. PPBS is such a process.

Because the primary mission of public schools is the education of children, much of the literature on PPBS in education, including the components of this training package, focus on analysis and development of *instructional programs*. This may give rise to the incorrect concept that the Business Office acts in isolation, separate and apart from the PPBS process. This *can* result in the district doing lip-service to PPBS by requiring the Business Office to recast the traditional function-object budget in a Program Budget "format." Such a budget document falsely implies that it is a *product* of the PPBS process.

In the Western New York PPBS model, the School Business Administrator and Business Office personnel are involved early in the Planning and Programming functions. Additionally, the unique concept of Program Analysis applies to the operational support programs as well as to instructional and instructional support programs. In other words, the PPBS functions and procedures, as described in the Western New York Model, are relevant to the way things are done in the district's Business Office.

SECTION 2: PPBS FUNCTIONS AND THE DISTRICT BUSINESS OFFICE

Initially, the implementation of a PPBS system poses *very real problems* to the district Business Office in terms of change-over from a line-item budget and accounting system to a Program Budget and accounting system. The change will require an investment in time and energy on the part of the Business Office staff if it is to be made smoothly and with a minimum of frustration.

What is probably the *best way* for the Business Office to assure that the conversion goes smoothly?

a. Begin preparation of the new accounting system at least one calendar year in advance of the change. ☐

b. Reorganize the Business Office to respond to the anticipated demands of the change to PPBS. ☐

c. Prepare for the change by working through the PPBS functions of Planning and Programming for all Business Office activities. ☐

- -

Feedback: *c* is the correct choice because both *a* and *b* are functions of *c*, applying the PPBS functions of Planning and Programming to the activities of the Business Office.

- -

We are saying that the School Business Administrator, and the Business Office, *should adhere to the same change process* that will be used in analysis and change of instructional and instructional support areas.

Planning, as a function of PPBS, involves:

1. Determining needs.
2. Establishing goals.
3. Generating specific multiyear objectives to meet specific needs.

Programming, as a function of PPBS, involves:

1. Describing activities to achieve the objectives.
2. Designing alternative sets of activities to achieve the objectives.
3. Determining resources required by the alternatives.
4. Selecting the alternative offering the most cost-effective achievement of objectives.
5. Projecting the alternatives in a multiyear plan.

Planning and *Programming* for Business Office functions would facilitate a change to PPBS by providing the following benefits:

1. Specific *needs* of the various activity areas of the Business Office (e.g., Purchasing, Accounting, etc.) are identified.
2. Long-term *goals* in fulfillment of those needs are described.
3. Specific multiyear *objectives* for each activity are described.
4. *Alternative means* of meeting the goals and objectives are specified and considered.
5. Decisions as to *changes* in structure, activity, or method within the Business Office are made on the basis of anticipated problems, cost, and effectiveness.
6. A basis for *on-going evaluation* of the change to PPBS, and the results in the various Business Office activity areas, is established.

Based on the benefits resulting from Business Office Planning and Programming, answer the following questions:

1. Would the benefits seem to provide for adapting to meet short-term problems? __________
2. Would the benefits provide for realization of long-term goals and objectives? __________
3. Would the Planning and Programming tend to minimize the Business Office acting in isolation from other district agencies? __________
4. Would the Planning and Programming increase the probability that the Program Budget produced by the Business Office will result from the PPBS process? __________

- -

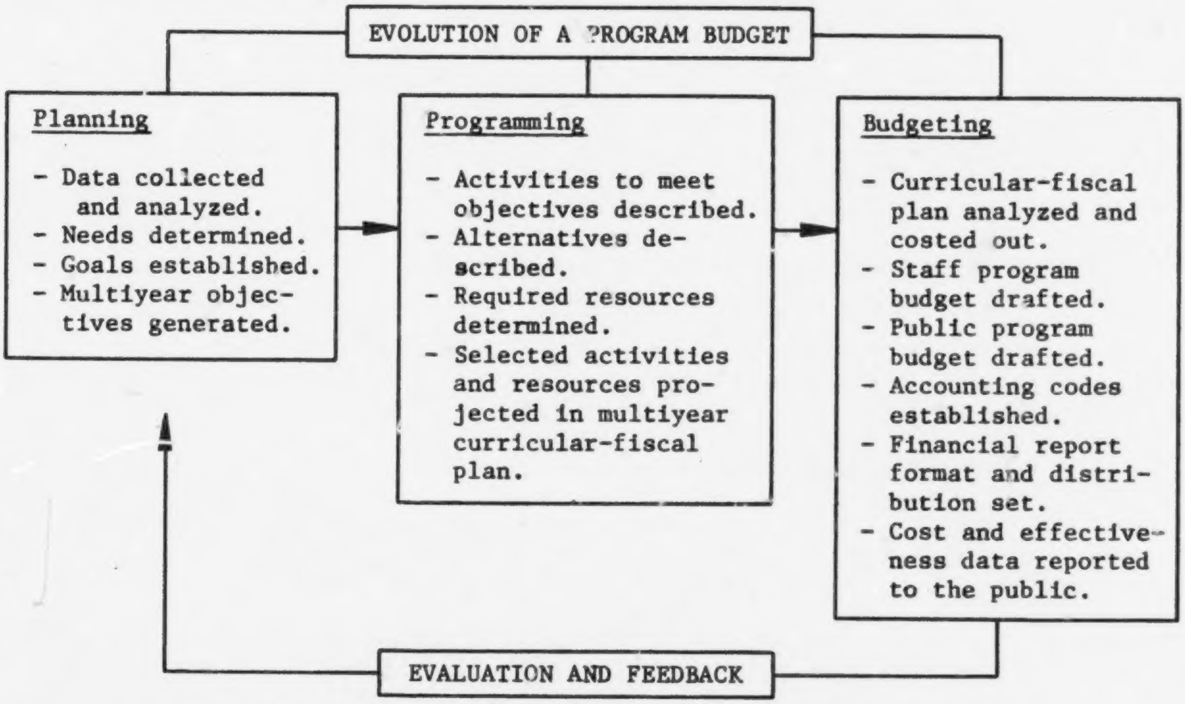
Feedback: *Yes* to all the above. *By determining needs* and objectives, short-term problems are dealt with. *By projecting multiyear objectives* and activities, progress toward long-term goals can be measured. *By engaging in Planning and Programming*, Business Office personnel would become involved with similar activities underway in the other district Programs, increasing the probability that true Program Budgeting would result.

- -

In the *PPBS Overview lesson,* the basic difference between a traditional function-object budget and a Program Budget was pointed out by displaying representative budget categories of each.

Traditional Budget *Function-Objects*	Program Budget *Educational Results, Services*
■ A-V Equipment	■ Drug Education
■ Classroom furnishings	■ Adult Literacy
■ Classroom supplies	■ Jr. High Instruction
■ Textbooks	■ Health Services

The point made was that because the *Program Structure* is based on a hierarchy of specific Program objectives, *the Program Budget* reports dollars spent on *services* and their *results* rather than on categories of things. This is not possible with the traditional *function-object budget,* which reports on *quantities of things purchased,* but offers no information on *how effectively* those things were used, or *how they were allocated.*



EVOLUTION OF A PROGRAM BUDGET

Planning

- Data collected and analyzed.
- Needs determined.
- Goals established.
- Multiyear objectives generated.

Programming

- Activities to meet objectives described.
- Alternatives described.
- Required resources determined.
- Selected activities and resources projected in multiyear curricular-fiscal plan.

Budgeting

- Curricular-fiscal plan analyzed and costed out.
- Staff program budget drafted.
- Public program budget drafted.
- Accounting codes established.
- Financial report format and distribution set.
- Cost and effectiveness data reported to the public.

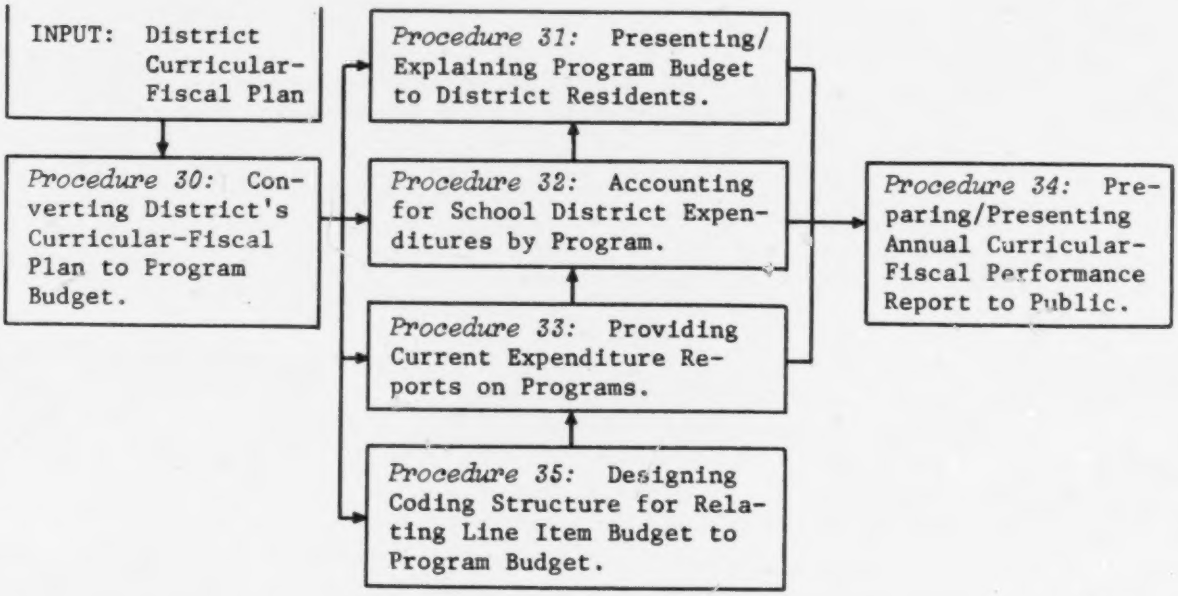
EVALUATION AND FEEDBACK

It is obvious that Budgeting begins with the first Planning decision, i. e., what data to collect, and flows through reporting costs and effectiveness of the various Programs to the public.

PROGRAM BUDGETING PROCEDURES

The Western New York PPBS Model assumes *early and on-going* Business Office involvement, as indicated by the preceding discussion of the Planning and Programming functions, is vital to the Business Office change-over from a *traditional budgeting system* to *PPBS*.

The *specific procedures* of the Budgeting function of the model, as part of the PPBS cycle, are as follows:


INPUT: District Curricular-Fiscal Plan
Procedure 30: Converting District's Curricular-Fiscal Plan to Program Budget.
Procedure 31: Presenting/Explaining Program Budget to District Residents.
Procedure 32: Accounting for School District Expenditures by Program.
Procedure 33: Providing Current Expenditure Reports on Programs.
Procedure 35: Designing Coding Structure for Relating Line Item Budget to Program Budget.
Procedure 34: Preparing/Presenting Annual Curricular-Fiscal Performance Report to Public.

These procedures describe the manner in which the Program Budget and accounting system are used in the accomplishment of strategic planning, management and operational control.

These procedures are largely the responsibility of the following roles: (Refer to *Functions* list in the PPBS Manual.)

Procedure #30 - School Business Administrator
#32 " " "
#33 " " "

#31 - Assistant Superintendent for Research/Planning

#34 - Educational Planning Council

#35 - School Business Administrator,
Assistant Superintendent for Research/Planning

Many other roles are involved in accomplishing the procedures, such as the Board of Education, Chief School Officer, and Community Residents, but the roles specified above are generally responsible for coordinating the achievement of the procedure indicated.

CONVERTING THE DISTRICT CURRICULAR-FISCAL PLAN TO A PROGRAM BUDGET

The product of the Programming procedures, as performed by the Program Committee (Program Director and Program Element Coordinators for each Program) is a *detailed multiyear curricular-fiscal plan,* which includes Business Office Programs. This consists of a Form 20 Program Element Summary and a Form 21 Quantity and Cost of Resources Summary for each Program to be operated in the district.

How does the school Business Office respond to the Program curricular-fiscal (C-F) plans in coverting them to a Program Budget?

1. a. Simply determines the total quantity and cost of resources for all district Programs. ☐
   b. Reviews the completeness and accuracy of the various C-F plans and then determines total quantity and cost of resources. ☐
   c. Reviews the C-F plans for completeness and accuracy; computes appropriate Program statistics; then determines total quantity and cost of resources (e.g., personnel, supplies) for all district Programs. ☐

- -

Feedback: Yes, *c* is the correct choice here. The Program Committee is as precise as possible in constructing the Program curricular-fiscal plan, but lacks the expertise and data of the school Business Office required to make the C-F plan as complete and accurate as possible.

- -

What tasks might the school Business Office perform in updating the various C-F Program plans to maximize their completeness and accuracy?

2. a. Checking costs of items specified against standard price lists. ☐
   b. Updating revenue forecasts from state and federal sources. ☐
   c. Updating district property valuation forecasts. ☐

- -

Feedback: We hope that you checked all of the above, because *a, b,* and *c* are representative of what the school Business Office must do initially in converting the Program C-F plans to a district Program Budget.

- -

In #1 above, the correct answer included computing appropriate Program statistics? What are "appropriate statistics"?

3. a. Capital outlay, debt service expenditures, and local support necessary. ☐
   b. Enrollment, staff, and cost per pupil. ☐
   c. Those statistics helpful to district planners and budgeters. ☐

- -

Feedback: Both *a* and *b* are examples of statistical categories that are probably useful, but *c* is really the correct choice here. PPBS and the Budgeting procedures *do not prescribe* what statistics are appropriate for any district.

At this point in the Budgeting procedures, the school Business Office has reviewed, updated, and compiled appropriate statistics for all Program curricular-fiscal plans. What is the next logical step?

a. Combine the compiled fiscal data with the curricular information in the Program Element Summaries to obtain a draft Program Budget. ☐

b. Involve the Educational Planning Council in the Budgeting process by inviting their reaction to the updated district curricular-fiscal plan. ☐

c. Finalize the district curricular-fiscal plan by obtaining the Chief School Officer's sign-off. ☐

Feedback: While all are steps in the Budgeting process, the *next logical step* is *b*. The various updated Program C-F plans comprise the district C-F plan, and the Educational Planning Council should have a chance to react at this point. After *b*, then *c* is accomplished, which requires the Chief School Officer to obtain approval of the Board of Education. Finally, *a* is performed, resulting in a draft of the Program Budget.

TASKS AND SEQUENCE FOR CONVERTING DISTRICT C-F PLAN INTO STAFF PROGRAM BUDGET

1. All individual Program C-F plans reviewed and updated for completeness and accuracy.
2. Appropriate statistics computed for each Program.
3. Curricular, fiscal, and statistical data compiled into revised district C-F plan.
4. Reviewed by Educational Planning Council, Chief School Officer, Board of Education, and community representatives.
5. Revised on basis of input from #4.
6. *Staff Program Budget* drafted, including all fiscal data and curricular information for each Program.

The *staff program budget* is obviously quite detailed. It serves as a vehicle for management and control of the various Programs operating in the district.

THE PROGRAM BUDGET, ANNUAL PERFORMANCE REPORT, AND THE PUBLIC

The public wants to know. Currently, the public is demanding information on *how* the school system spends its allocated funds, and *what* the expenditure results are in terms of achievement. Taxpayers' revolts are a reality, and public interest in the funding of education can be expected to increase.

Present school budgets meet the minimum requirements for displaying funds received and expended, but they do not show how those funds support various curricular Programs. A Program Budget does.

Public concern can be divided into four component areas:

1. How much is being spent on each educational Program?
2. What are the planned results, in terms of achievement, of those Programs?
3. What are the actual results, in terms of achievement, of the funded Programs?
4. What is the relationship between cost and effectiveness of each Program?

How is the first concern best answered?

a. By the fiscal portion of the Program Budget. ☐
b. By the curricular portion of the Program Budget. ☐
c. By the annual performance report. ☐

Feedback: The first public concern, how much is being spent, is answered by the fiscal portion of the Program Budget. The second public concern, what achievement is expected, is answered by the objectives and methods of measure specified in the curricular portion of the Program Budget.

Obviously, this leaves the *annual performance report* (c above) as the vehicle for answering the remaining public concerns -- *what did money spent on each educational program actually produce in terms of achievement?*

What we are saying is that the Budgeting function of PPBS addresses public interest and concern with educational costs and effectiveness by doing these things:

- Displaying how much is to be expended on each educational program to be operated in the coming year (Program Budget-fiscal portion).
- Defining each funded Program in terms of objectives and expended levels of achievement for the coming year (Program Budget-Curricular portion).
- Reporting actual levels of achievement of objectives for all funded Programs annually (Annual Performance Report).

In other words, at the *start of the school year* (September-October), the Budgeting function reports to the community the *actual achievement* resulting from funds expended over the *preceding school year*. At the *close of the school year* (May-June), the Budgeting functions report to the community *where the money is going*, and *what achievement should result* over the *coming school year*.

> It should be noted that the *staff program budget* (page 13) is much too detailed a document to be useful to the public in answering their concerns. As an alternative, the Budgeting procedures direct preparation of a *Summary Program Budget* for public use. For citizens wishing to look beyond the information in the Summary Program Budget, the staff program budget is available as a reference.

Let's focus on the *annual performance report*. Who is in the best position to generate such a document?

a. Program Directors and Program Element Coordinators of various Programs. ☐

b. School Business Office. ☐

c. Chief School Officer and Board of Education. ☐

- -

Feedback: Answer *a* is correct. To find out what's happening at the front lines, ask the troops involved in the battle. The school Business Office, Chief School Officer, and Board of Education are all interested in the performance report of the various Programs for input as to revision, planning, and allocation of funds, but they are not charged with generating the performance report.

- -

The *annual performance report* for each Program reports funds actually expended and benefits resulting in terms of achievement of objectives.

> Remember that the *Program Director* and *Program Element Coordinators* of the various Programs described the Programs' *objectives, expected achievement,* and *methods of measure* at the beginning of the current year. At the *end* of that year, each Program is *held accountable in terms of its own objectives and predicted achievement.*

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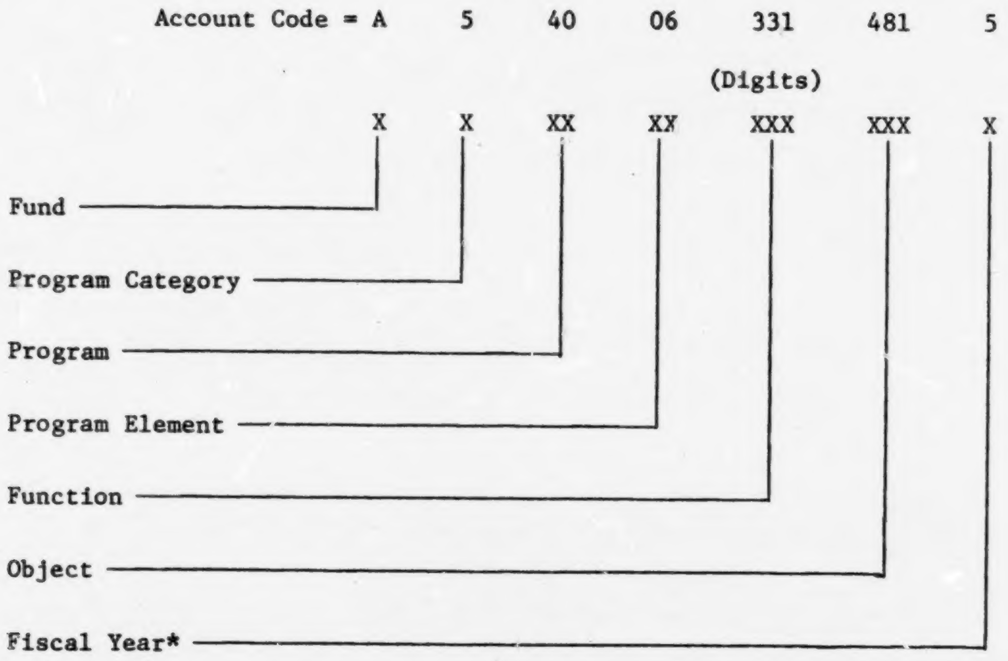
PROGRAM BUDGET ACCOUNTING AND FINANCIAL REPORTS

The Budgeting procedures establish the need for change in the school Business office areas of *accounting for expenditures by Program,* and *providing current fiscal expenditure reports by Program.*

In accounting for expenditures by Program, these things must be done:

1. Review present account codes to insure completeness for recording Program expenditure data.
2. Revise account code structure on the basis of the review in #1.
3. Check revised account code structure to make certain required state and local data can be obtained from it.

Here is an illustrative account code structure:


Account Code = A 5 40 06 331 481 5
(Digits)
X X XX XX XXX XXX X
Fund
Program Category
Program
Program Element
Function
Object
Fiscal Year*

*Optional - desirable but not necessary.

Such a structure allows for accounting of expenditures by Program in that it keys the accounting ledger system to the appropriate Program Category, Program, and Program Element.

Examples:

A	2					INSTRUCTIONAL PROGRAM CATEGORY
A	2	20				Junior High School Program
A	2	20	02			Language Arts Program Element
A	2	20	02	220	112	Teachers Salaries
A	2	20	02	220	611	Fringe Benefits
A	2	20	02	220	301	Supplies
A	2	20	02	220	200	Equipment

- or -

A	4					OPERATIONAL SUPPORT PROGRAM CATEGORY
A	4	51				Business Services Program
A	4	51	01			Purchasing Program Element
A	4	51	01	130	150	Clerical Salaries
A	4	51	01	130	613	Fringe Benefits
A	4	51	01	130	301	Supplies
A	4	51	01	130	200	Equipment

Using the *illustrative code structure* on the opposite page, and the *examples above,* answer these questions.

1. What is the code designator for the *fund* providing for the Jr. High Language Arts Program Element? ______

2. What is the code designator for the Operational Support Program Category? ______

3. What does the account code *A 2 20 02 220 611* stand for? ______

   ______

4. What would be the account code for the account recording expenditures for *supplies* in the *purchasing division* of the school Business Office?

   ______

Check your answers at the top of the next page.

Feedback: 1-A 2-4
3-Language Arts Program Element - Fringe Benefits
4- A 4 51 01 130 301

- -

The Budgeting procedures *do not dictate* the nature of current fiscal expenditure reports, or who is to receive them, but rather present a model for their construction and distribution based on the needs of the particular district.

Let's see what that means by responding to these questions on fiscal expenditure reports. Answer these questions.

1. The school Business Office should issue Program financial reports --
   - a. Only to the Program Director. ☐
   - b. To state and local officials, Board members, Program Directors, and Element Coordinators. ☐
   - c. To those roles in the district who use the data contained in the financial report. ☐
2. Content and format of the reports should be --
   - a. As prescribed in state financial guidelines. ☐
   - b. Whatever maximizes their worth to the users of the reports. ☐
   - c. Same as the Program Budget, only more specific. ☐
3. Program financial reports should be issued --
   - a. Periodically, as requested by the users. ☐
   - b. Monthly. ☐
   - c. Annually. ☐
4. Content of the reports should be determined by --
   - a. Summarizing Program curricular-fiscal data and matching it with expenditures to date. ☐
   - b. Reporting all Program revenue, expenditures and statistics. ☐
   - c. Interviewing the user to determine what financial data are needed for management of the Program. ☐

Compare your answers with ours at the top of the next page.

Answers to Page 18:
1-c 2-b 3-a 4-c

In other words, the Budgeting procedures require changing the current financial reporting system in order to provide the following benefits:

- Financial reports are issued by Program to those personnel who need the information.

- Format, content, and frequency of the financial reports corresponds with the needs of the user.

The Program financial reports provide data to those involved in operating and managing the Program which allows interim cost-effectiveness analysis, and on-going revision of the curricular-fiscal plan, if indicated. They are both a control and management tool.

NOTE: Both Procedure 32 - Accounting for Expenditure by Program, and Procedure 33 - Providing Current Fiscal Expenditure Reports by Program, are discussed in great detail in the *Program Budgeting* guides which follow this lesson. Lesson objectives are met at this point if you understand what is done in the two procedures, and why. The guides will provide step-by-step specification of how the procedures are performed.

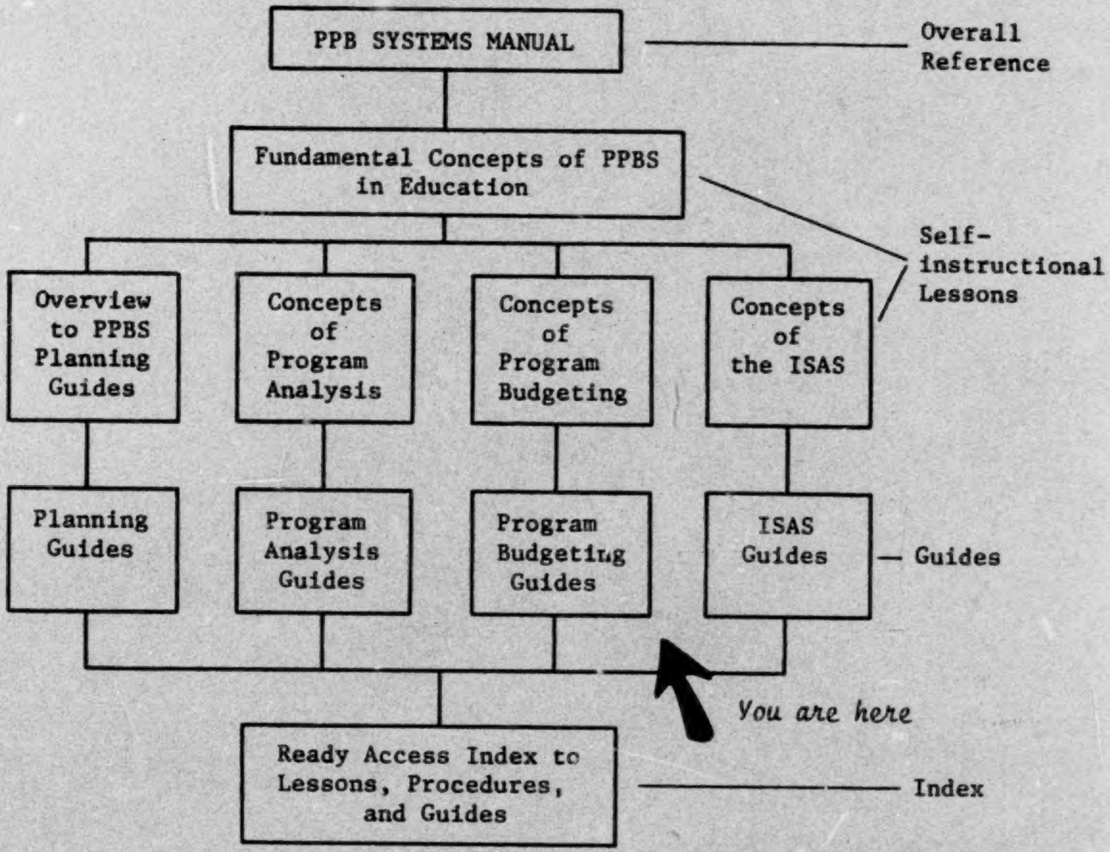
Guide #1

PROGRAM BUDGETING GUIDE #1

for use by the

School Business Administrator

WESTERN NEW YORK PPBS TRAINING PACKAGE


PPB SYSTEMS MANUAL
Overall Reference
Fundamental Concepts of PPBS in Education
Self-instructional Lessons
Overview to PPBS Planning Guides
Concepts of Program Analysis
Concepts of Program Budgeting
Concepts of the ISAS
Planning Guides
Program Analysis Guides
Program Budgeting Guides
ISAS Guides
Guides
You are here
Ready Access Index to Lessons, Procedures, and Guides
Index

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PROGRAM BUDGETING GUIDE #1

PURPOSES OF THIS GUIDE

Program Budgeting Guide #1 is the first in a series of four guides which combine to assist in the performance of *Budgeting Procedures 30-35*. This guide is specifically designed for use by the *School Business Administrator*, in coordinating the effort required by Procedures 30, 32, and 33.

Procedure 30 - Converting the District's Curricular-Fiscal Plan into a Program Budget.

Procedure 32 - Accounting for School District Expenditures by Program

Procedure 33 - Providing Current Fiscal Expenditure Reports to the Chief School Officers, Program Directors, and Program Element Coordinators.

The three procedures that are the focus of this guide serve to divide it into *sections*. Each section is identified by its own title page, and all sections are for use by the School Business Administrator. Other roles are involved in accomplishing the three procedures, but the School Business Administrator bears the responsibility for managing and coordinating those roles. He is ultimately accountable for Procedures 30, 32, and 33.

Understanding of the following terms is most important in performance of the Budgeting procedures:

- Staff Program Budget - *All* annual curricular-fiscal data generated in the Planning, Programming, and Budgeting functions.
- Public Program Budget - *Summarization* of the relevant content of the staff Program Budget in a format suitable for public presentation.
- District Curricular-Fiscal Plan - Specification of program objectives, activities, resources, and costs generated annually as a product of the Planning and Programming functions.
- Annual Performance Report - Yearly accounting to the district residents of the intended objectives, actual achievements, and costs of each district program.

SECTION 1: Procedure 30- Converting the District's Curricular-Fiscal Plan into a Program Budget

PROCEDURE 30 PERFORMANCE CHECKLIST

For use by: School Business Administrator

Converting the district's C-F plan to a Program Budget requires performance of the following tasks, in the sequence indicated. This checklist serves to overview and schedule the accomplishment of Procedure 30 and as a "performance check" for the School Business Administrator.

Task	Description	Other Roles Involved	Completed
1	Obtain Program Memoranda, Form 20, and Quantity/Cost of Resources, Form 21, for each district Program.	Program Directors	☐
2	Coordinate review of Form 21's by Educational Planning Council.	EPC	☐
3	Review/update resource cost for each Program.	-	☐
4	Construct Form 21 Program Budget data for each district Program.	-	☐
5	Obtain Schedule of Capital Outlay and Debt Service Expenditure - Form 19.	-	☐
6	Obtain/update Federal/State Revenue Forecasts - Form 12.	-	☐
7	Obtain/update Property Valuation Forecasts - Forms 14, 15.	-	☐
8	Identify sources/amounts of revenue on Form 24.	-	☐
9	Determine amount of local support required.	-	☐
10	Obtain/construct Program Statistics - Form 24-a.	Asst. Supt. Res/Plnng	☐
11	Coordinate review of revenue, expenditure, statistical data by EPC.	EPC	☐
12	Review Chief School Officer's cost placement decisions for next fiscal year.	-	☐
13	Coordinate review of district C-F plan by Board of Education, DPC.	-	☐
14	Compile final copy of proposed Program Budget.	-	☐
15	Coordinate compiling of curricular information for each Program included in Program Budget.	Asst. Supt. Res/Plnng	☐
16	Coordinate organization of all data into staff program budget.	Asst. Supt. Res/Plnng	☐
17	Coordinate review of staff program budget by Board of Education and EPC.	Board, EPC	☐

TASK 1: OBTAIN FORM 20 AND FORM 21 FOR EACH DISTRICT PROGRAM

- Form 20 - *Program Memorandum* - Documents multiyear objectives, measures of effectiveness, experiences/activities, progress toward achievement, alternative experiences considered, reasons for not selecting them, multiyear recommendations, data sources, assumptions, and uncertainties.
- Form 21 - *Quantity and Cost of Resources Required* - Documents translation of personnel, equipment, supplies, and miscellaneous resources required by the Program alternative of choice into dollar cost over the multiyear time frame of the Program.

These two forms for each district Program are the components of the district curricular-fiscal plan. They are the basic input for all work done in Procedure 30, and to the ultimate district Program Budget. Both completed forms can be obtained from the Program Director for the various district Programs.

THE SCHOOL BUSINESS ADMINISTRATOR SHOULD MAKE CERTAIN THAT HE HAS OBTAINED A FORM 20 AND A FORM 21 BEFORE ATTEMPTING FURTHER TASKS IN PROCEDURE 30.

Here is a sample checklist that could be used to assure that all required forms have been obtained:

PROGRAM	PROGRAM DIRECTOR	FORMS OBTAINED	
		Form 20	Form 21
Parker High	McNutt	✓	✓
Wentworth Elementary	Ching	✓	
Pupil Transportation	Sullivan	✓	✓
Business Services Program	Dombroski		✓

TASK 2: COORDINATE REVIEW OF FORM 21's BY EDUCATIONAL PLANNING COUNCIL

When all Form 20/21's have been obtained from the district Program Directors, the School Business Administrator is responsible for providing copies of the Form 21's - Quantity and Cost of Resources - to the district Educational Planning Council for review.

The EPC should be instructed to review the Form 21 for each Program in terms of the quantity and quality of resources necessary for the next fiscal year.

TASK 3: REVIEW AND UPDATE RESOURCE COST FOR EACH PROGRAM

Following the EPC's review of the Form 21's in Task 2, the School Business Administrator is responsible for reviewing and, if necessary, updating the cost of resources required by each district Program.

This is accomplished by:

- Referring to standard price lists.
- Referring this task to appropriate procurement personnel.

TASK 4: CONSTRUCT FORM 21 PROGRAM BUDGET DATA FOR EACH DISTRICT PROGRAM

Task 4 is actually the product of Tasks 1, 2, and 3 of Procedure 30. The School Business Administrator is responsible for constructing a revised Form 21 for each district Program, reflecting all changes that have resulted from the EPC review (Task 2) and his review/update (Task 3). It is a "final check" of cost completeness and accuracy for each Program.

The Form 21's constructed in Task 4 reflect the actual cost data that will serve as input to the Program Budget.

TASK 5: OBTAIN SCHEDULE OF CAPITAL OUTLAY AND DEBT SERVICE EXPENDITURE - FORM 19

TASK 6: OBTAIN/UPDATE FEDERAL/STATE REVENUE FORECASTS - FORM 12

TASK 7: OBTAIN/UPDATE PROPERTY VALUATION FORECASTS - FORMS 14, 15

Tasks 5, 6, and 7 represent collection of needed Program Budget input data by the School Business Administrator. The following decision table is designed to facilitate gathering the specified forms.

IF the form to be obtained is	THEN refer to	AND contact
Form 12 - Federal	Procedure 9, PPBS Manual	District Coordinator of Federally Funded Programs
Form 12 - State	Procedure 10, PPBS Manual	School Business Administrator
Form 14 -	Procedure 13, PPBS Manual	School Business Administrator
Form 15 -	Procedure 13, PPBS Manual	School Business Administrator
Form 19 -	Procedure 16, PPBS Manual Appendix D, PPBS Manual	School Business Administrator

Note that the School Business Administrator is the originator of all but one of the required forms. By reviewing them, he can determine the need for, and complete an update of their content, based on current conditions in the district.

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TASK 8: IDENTIFY SOURCES AND AMOUNTS OF REVENUE ON FORM 24

TASK 9: DETERMINE AMOUNT OF LOCAL SUPPORT REQUIRED

Constructing the Form 24

Form 24 - *Estimated Revenue and Expenditure Report* - is constructed by the School Business Administrator to display *proposed Program expenditures, sources and amounts of revenue* for the coming fiscal year, and the amount of *local district support required* for the coming fiscal year.

Task 8 is accomplished working from the following input:

- Final Program Form 21's constructed in Task 4.
- Forms and data collected in Tasks 5-7.

Form 24 serves as a "worksheet" for recording the appropriate amounts in the required categories.

Task 9 is the product of Task 8, or the "Total District" column that is the last entry on the Form 24.

A partially completed Form 24 is presented on the following page.

Form 24

ESTIMATED REVENUE AND EXPENDITURE REPORT

Date May 17, 1975

District Ellington Central

Person Completing School Business Administrator Time period 7/75 to 6/76

Instructions:

1. Obtain proposed program expenditures from each Program Memorandum.
2. Indicate what federal and state aid monies are applicable to particular programs.
3. Determine amount to be raised locally.

Item	Programs							Total District
	"A"	"B"	"C"	"D"	"E"	"F"	"N"	
Proposed Expenditure	166,429	173,053						5,630,541
Applicable Federal Aid								20,000
Applicable State Aid								3,350,825
Local Support Necessary								2,259,716
Local Tax Rate	per $1,000 of assessed value							56.04

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TASK 10: OBTAIN/CONSTRUCT PROGRAM STATISTICS ON FORM 24-a

Form 24-a is a three-part form which summarizes fiscal data in the following areas:

- Form 24-a, page 1 - *Program Category* Budget Summary
- Form 24-a, page 2 - *Program Budget* Summary
- Form 24-a, page 3 - *Program Element* Budget Summary

It serves to display general-to-specific cost data and statistics beginning with the past year, and projecting through the current year and for each subsequent year for five years into the future.

The *School Business Administrator* is responsible for collecting data and statistics for the past year.

The *Assistant Superintendent for Research and Planning* is responsible for projecting cost data and statistics over the next five years on Form 24-a.

Note that the attached Form 24-a, like all forms contained in the Western New York PPBS Model and Training Package, is intended only for illustrative purposes. Individual districts should design a Form 24-a to reflect their own Program Categories, Programs, and Program Elements, and to compute and record the Program Statistics that are desired for that district.

A sample Form 24-a is presented on the following three pages. In the example, pages 1 and 2 (*Program Category* and *Program* Budget Summaries) are partially completed. The *Program Element* Budget Summary (Page 3), is fully completed as a model for the kinds of computation required by Form 24-a.

FORM 24-a
(Page 1 of 3)

Date ____________________
District ____________________
Person Completing ____________________

PROGRAM CATEGORY BUDGET SUMMARY
(Dollar Amounts in Thousands)

	Actual	Planned	Projected					
Programs	Last Year	This Year	Next Year Budget	Year 1	Year 2	Year 3	Year 4	Year 5
Policy, Coordination & Control								
Legislative								
Executive								
Community								
Personnel Services								
Instructional								
Elem School	1,223	1,392	1,486	1,623	1,686	1,223	1,767	1,783
Junior High	642	731	763	792	823	843	862	873
Senior High	733	843	874	931	972	993	1,007	1,021
Special Educ.	342	363	386	402	421	427	462	473
Cont. Educ.	32	36	38	41	42	45	48	51
Operational Support								
Facilities								
Oper. Support Administration								
Plant Operation								
Food Services								
Pupil Trans.								
Business Ser.								
Instructional Support								
Inst. Support Administration								
Curriculum Dev.								
Health Services								
Pupil Pers. Ser.								
Learning Research								
TOTAL	$	$	$	$	$	$	$	$
Incr. Dollar Change		$	$	$	$	$	$	$
Incr. Percent Change		%	%	%	%	%	%	%

*PROGRAM STATISTICS: (For each Program Category)

Enrollment								
Cost per Pupil								
**Staff:								
Professional								
Support								

*A summary is prepared for all four major program categories.

**The appropriate staff designation is used for each program category.

FORM 24-a
(Page 2 of 3)

PROGRAM BUDGET SUMMARY

	Actual	Planned	Projected					
Programs	Last Year	This Year	Next Year Budget	Year 1	Year 2	Year 3	Year 4	Year 5
Program: High School A								
Program Element								
Art								
Business								
Foreign Language								
Health, Safety & Physical Ed.								
Industrial Arts								
Language Arts								
Mathematics	147,860	151,860	162,438	168,742	177,238	191,638	211,222	227,550
Music								
Science								
Social Studies								
Vocational Studies								
Extra Curricular								
Adm & Supervision								
Operation Services								
TOTAL	$_____	$_____	$_____	$_____	$_____	$_____	$_____	$_____
Incr. Dollar Change		$_____	$_____	$_____	$_____	$_____	$_____	$_____
Incr. Percent Change		___%	___%	___%	___%	___%	___%	___%

*PROGRAM STATISTICS: (For each Program)

Enrollments Cost per Pupil								
**Staff: Professional Support								

*A summary is prepared for each program.

**The appropriate staff designation is used for each program.

FORM 24-a
(Page 3 of 3)

PROGRAM ELEMENT BUDGET SUMMARY

	Actual	Planned	Projected					
Mathematics Program Element	Last Year	This Year	Next Year Budget	Year 1	Year 2	Year 3	Year 4	Year 5
Salaries	144,326	148,326	158,521	162,726	170,687	184,232	203,423	219,321
Supplies	434	434	531	662	736	826	930	1,022
Equipment	755	755	822	1,200	1,110	1,222	1,322	1,383
Textbooks	1,695	1,695	2,232	3,637	4,100	4,637	4,736	4,892
Contractual	--	--	--	--	--	--	--	--
Other	650	650	332	522	610	726	811	932
TOTAL	$147,860	$151,860	$162,438	$168,792	$177,238	$191,638	$211,222	$227,550
Incr. Dollar Change		$ 4,060	$ 10,578	$ 6,304	$ 8,496	$ 14,400	$ 19,584	$ 16,328
Incr. Percent Change		2.7%	7.0%	3.9%	5.0%	8.1%	10.0%	7.8%

*PROGRAM STATISTICS: (For each Program Element)

Enrollment Cost per Pupil	$96	$95	$100	$102	$105	$107	$111	$116
**Staff: Professional Support	12	12	13	13	13	14	15	16

*A summary is prepared for each Program Element.

**The appropriate staff designation is used for each Program Element category.

TASK 11: COORDINATE REVIEW OF REVENUE, EXPENDITURE, AND STATISTICAL DATA BY THE EDUCATIONAL PLANNING COUNCIL

The *School Business Administrator* provides the following input for the EPC's review of revenue, expenditure, and statistical data. *For each district Program:*

Form 24-a - Completed in Task 10 by the School Business Administrator and the Assistant Superintendent for Research and Planning.

Form 21 - Program Budget data for each Program completed in Task 4.

Form 20 - Program Memorandum for each Program obtained in Task 1.

These documents combine to provide the Educational Planning Council Program-level input for consideration in their decision-making process as to which Programs to recommend for inclusion in the budget for the next fiscal year.

The specified forms:

Provide statistical cost input - Form 24-a.

Provide fiscal Program Budget input - Form 21.

Provide curricular Program Budget input - Form 20.

Working from these data, the Educational Planning Council will recommend specific Programs to the Chief School Officer for the coming year.

TASK 12: REVIEW CHIEF SCHOOL OFFICER'S COST PLACEMENT DECISIONS FOR THE NEXT FISCAL YEAR

Working from the recommendation of the EPC that results from Task 11, the Chief School Officer makes a preliminary allocation of funds to various district Programs for the coming fiscal year.

Task 12 requires the *School Business Administrator* to review the cost placement decisions of the Chief School Officer. This review is designed as a technical check on preliminary cost placement.

After reviewing the Chief School Officer's preliminary allocation of funds to various Programs, the School Business Administrator should meet with him to identify and explain any desired technical revisions or changes.

TASK 13: COORDINATE REVIEW OF THE DISTRICT C-F PLAN BY THE BOARD OF EDUCATION AND DISTRICT PLANNING COUNCIL

Following action on any suggested revisions or changes to his preliminary cost placement among district Programs, the Chief School Officer is responsible for presenting the district's C-F plan to the Board of Education, which, after review and revision, presents the C-F plan to the District Planning Council (DPC).

The District C-F Plan, at this point, consists of the following documents *for all Programs recommended for funding* by the Chief School Officer:

1. Form 20 - Program Memorandum
2. Form 21 - Program Budget Data
   (Quantity and Cost of Resources)
3. Form 24 - Estimated Revenue and Expenditure Report
4. Form 24-a - Program Cost and Statistical Summaries

NOTE: The Board of Education has the legal right to modify any portion of the indicated funding, to modify or reject any portion of the C-F plan, and to accept or reject the entire C-F plan.

TASK 13 (Continued)

Following review and revision by the Board of Education, the School Business Administrator and representatives of the Board present the revised district C-F plan to the District Planning Council. The DPC acts as a "mini-public," serving as a sounding board to voice the reactions and suggestions of the district residents to the proposed C-F plan for the coming year.

The Board of Education considers the suggestions and recommendations of the DPC in finalizing the district C-F plan for the next fiscal year, and forwards the finalized plan to the Chief School Officer.

TASK 14: COMPILE A FINAL COPY OF THE PROPOSED PROGRAM BUDGET

Working from the *final district curricular-fiscal* plan, the School Business Administrator constructs a proposed Program Budget. This is a *summary* of the information contained on all forms completed in Procedure 30, arranged in a *Program Budget format* **for use internally.**

An illustrative Program Budget format is displayed on the following three pages.

[SAMPLE FORMAT]

ILLUSTRATIVE
PROGRAM BUDGET OUTLINE
FOR A SCHOOL DISTRICT

I. School District Philosophy

II. Program Categories

A. Policy, Coordination and Control

1. Executive

Goals
Objectives
Activities
Cost $________________

2. Legislative

Goals
Objectives
Activities
Cost $________________

3. Community

Goals
Objectives
Activities
Cost $________________

Subtotal $____________

B. Instruction

1. High School

Goals
Objectives
Activities
Cost $________________

2. Elementary School A

Goals
Objectives
Activities
Cost $________________

[SAMPLE FORMAT]

II. B. Instruction (continued)

3. Elementary School B

Goals
Objectives
Activities
Cost $__________

4. Summer School

Goals
Objectives
Activities
Cost $__________

5. Continuing Education

Goals
Objectives
Activities
Cost $__________

Subtotal $________

C. Instructional Support

1. Guidance Services

Goals
Objectives
Activities
Cost $__________

2. Health Services

Goals
Objectives
Activities
Cost $__________

Subtotal $________

D. Operational Support

1. Business Services

Goals
Objectives
Activities
Cost $__________

Subtotal $________

[SAMPLE FORMAT]

II. D. **Operational Support (continued)**

2. Transportation Services

   Goals
   Objectives
   Activities
   Cost $__________

3. Food Services

   Goals
   Objectives
   Activities
   Cost $__________

Subtotal $________

Total Expenditures $________

TASK 15: COORDINATE COMPILING OF CURRICULAR INFORMATION FOR EACH PROGRAM INCLUDED IN THE PROGRAM BUDGET

TASK 16: COORDINATE ORGANIZATION OF ALL DATA INTO A STAFF PROGRAM BUDGET

Even though these tasks are performed by the Assistant Superintendent for Research and Planning, it is the responsibility of the School Business Administrator to coordinate their performance and check on their completeness.

Task 15 is accomplished by obtaining a copy of the *Form 20 Program Memorandum* for each Program included in the Program Budget for the coming fiscal year, and compiling them as a curricular reference for the management of the various Programs. Copies of the Form 20 Program Memorandum can be obtained from the Program Directors whose Programs have been selected for inclusion in the Program Budget.

Task 16

The *staff version* of the proposed Program Budget is the product of Task 16.

A *staff program budget* is a massive and very detailed collection of component documents. The checklist below specifies the *minimum* components of the staff program budget.

Components Checklist - Staff Program Budget

- Completed Form 12 - State and Federal Aid Forecast ☐
- Completed Form 15 - Real Property Valuation Forecast ☐
- Completed Form 17 - District Revenue Forecast ☐
- Completed Form 19 - Schedule of Capital Outlay and Debt Expenditure ☐
- All Form 20 Program Memoranda for district programs ☐
- All Form 21 Cost of Required Resources for district programs ☐
- Completed Form 24 - Estimated Revenue and Expenditure Report ☐
- Completed Form 24-a - Program Budget Summary ☐

Additional components may be included, depending on the specific district implementation of the Program Budgeting procedures.

Obviously, the staff program budget is too complex and cumbersome for public presentation. It remains, however, the *ultimate resource* for all subsequent budget planning and management activities, and specific public inquiry.

Later guides in this series provide for construction of a public version of the Program Budget.

TASK 17: COORDINATE REVIEW OF STAFF PROGRAM BUDGET BY BOARD OF EDUCATION AND EDUCATIONAL PLANNING COUNCIL

When the *Assistant Superintendent for Research and Planning* has completed Tasks 15 and 16, and their completeness and accuracy have been checked by the *School Business Administrator*, he presents the Staff Program Budget for review and approval by **the Board of Education and the EPC.**

Upon approval, the Staff Program Budget becomes the final district curricular-fiscal design for the coming year, contingent upon voter approval of the public version, which is the focus of Budgeting Guide #2 in this series.

SECTION 2: Procedure 32 - Accounting for School District Expenditures by Program

PROCEDURE 32 PERFORMANCE CHECKLIST

For use by: School Business Administrator

Accounting for school district expenditure by Program requires performance of the following tasks, in the sequence indicated. This checklist serves to overview and schedule the accomplishment of Procedure 32, and as a "performance check" for the School Business Administrator.

Task	Description	Other Roles Involved	Completed
1	Obtain copies of voter approved Program Budget (Procedure 31).	Asst. Supt. Res/Planning	☐
2	Review account codes for completeness and adequacy (Procedure 35).	" "	☐
3	Record budget appropriations in correct financial account at beginning of fiscal year.		☐
4	Develop decision rules for allocating line-item expenditures to Program activities.	Chief School Officer	☐
5	Review report schedule dates and determine frequency of updating Program expenditures (Procedure 33).	" "	☐
6	Record revenue and expenditure data in appropriate accounts.	--	☐
7	Maintain appropriate Program account balances for use in developing financial reports.	--	☐

Obviously, the tasks specified closely resemble the present activities of accounting for expenditure accomplished by the line-item function-object account ledger system. What is different is that expenditures are accounted for by Program, and that decision rules are initially developed, and reviewed in subsequent years, for allocation of line-item activities to Programs.

The references to specific procedures following tasks 1, 2, and 5 indicate that the Budgeting Guides for those procedures include specific guidance on those tasks.

TASK 4: COST ALLOCATION DECISION RULES - A MODEL

Whenever school personnel are preparing a Program Budget, or compiling an expenditure report for Program activities, a question usually arises as to *which activity costs should be included in the Program costs.*

Should *administrative costs* by prorated to *all* programs? How do we determine the *amount* to be prorated? Specifically, should we prorate the *cost of utilities* to *all* Program Elements? Should we reflect *fringe benefits* in *all* salary figures? How do we allocate the *cost of general supplies* used for instruction in all Program Elements? Since the Program costs reflect such allocation decisions, care should be taken to show costs to the *appropriate* Programs and Program Elements. A log book should be maintained of the allocation decisions that have been made for future reference and review.

In general, all costs should be shown which affect a particular Program or Program Element. For example, science equipment costs should be reflected in the science program. Likewise, the cost of science field trips should be shown as a cost in the science program.

In some cases, it may be desirable to prorate certain costs to *various* Program Elements or Programs. For example, a teacher who works in *two different Programs or Program Elements* should have her salary allocated to *both* Programs or Program Elements. Decisions concerning the allocation of supply and utility costs could be made on a similar basis.

Caution should be exercised as to the *degree* of prorating costs. Some school personnel may deem it desirable to prorate *all* costs (operational support, instructional support, policy coordination, and control) back to the *instructional programs.* Analysis of such a proposed procedure should consider the *effect* upon the decision-making activities. Showing a portion of the superintendent's salary in each Program Element does not provide much more useful information to the decision makers. All of the Program Element costs would remain in the *same relative position.* A decision to *remove* a Program Element activity would not result in a corresponding *reduction* in the superintendent's salary. Prorating such costs may require more time and effort to accomplish than it has worth to the decision makers.

If school personnel decide to prorate certain costs or if the Program Structure adopted by a school district requires proration (for example, a subject-matter-oriented Program Element at the elementary school level), the guidelines provided on the following page suggest the units to be used.

IF the item to be prorated is	THEN the unit of proration is:
Heat and Electricity	Per square foot of floor space
Library Books	Per student
Plant Maintenance	Per square foot of floor area
Property Insurance	Per square foot of floor area
Rent	Per square foot of floor area
Salaries and Fringe Benefits	Percent of time employee spends in activity
Staff Development	Percent of total staff assigned to the Program or Program Element
Substitutes	Percent of total staff assigned to the Program or Program Element
Supplies	Per student
Transportation	Per student
Water and Sewer	Per student

SECTION 3: Procedure 33 - Providing Current Fiscal Expenditure Reports to the Chief School Officers, Program Directors, and Program Element Coordinators

PROCEDURE 33 PERFORMANCE CHECKLIST

For use by: School Business Administrator

Providing Current Fiscal Expenditure Reports to Users requires performance of the following tasks, in the sequence indicated. This checklist serves to overview and schedule the accomplishment of Procedure 33, and as a "performance check" for the School Business Administrator.

Task	Description	Other Roles Involved	Completed
1	Identify and interview users of Program fiscal expenditure reports.	--	☐
2	Develop format and content requirements for Program fiscal expenditure reports.	Educational Planning Council	☐
3	Prepare periodic Program fiscal expenditure reports according to schedule, upon request, or when encumbered balance reaches budgeted amount.	--	☐
4	Provide Program fiscal expenditure reports to users.	--	☐

In terms of what must be done, Procedure 33 is quite similar to Procedure 35 - *Designing a Coding Structure for Relating a Line-Item Budget to a Program Budget.* (Program Budgeting Guide #4.) Both procedures involve interviewing data users, determining their needs, and responding to them by providing required data in a useful format.

The following pages provide *general illustrative guidance* for the performance of tasks 1-4 above, which combine to result in the successful accomplishment of Procedure 33.

TASK 1: IDENTIFY AND INTERVIEW USERS OF PROGRAM FISCAL EXPENDITURE REPORTS

This task requires the School Business Administrator to *determine who uses* Program fiscal expenditure data, and to *interview the users to determine their data needs.*

Potential Users include:

- Chief School Officer
- Board of Education
- Program Directors
- Program Element Coordinators
- Community Residents *(Educational Planning Council, District Planning Council)*
- District Administrative Personnel
- State Officials

Exactly who the users of Program fiscal expenditure data are will depend on the particular district situation but the above list probably represents a *minimum list* for most school districts.

Having *identified* the users, the School Business Administrator must next *interview representatives of each user category* to determine their specific data needs.

Some sample interview questions might include:

1. What Program fiscal expenditure data do you now use? In what form is the data provided to you?
2. What Program fiscal expenditure data do you need that you are not now getting? What general format is desirable for presentation of needed data?
3. How frequently do you need the data specified in #1 and #2 above? How often do you need fiscal expenditure data on a "special request" basis?
4. What needs do the content, format, and frequency of current Program fiscal data reports leave unfilled?

User needs should be recorded and categorized by role (Program Director, Board of Education member, etc.)

TASK 2: DEVELOP FORMAT AND CONTENT REQUIREMENTS FOR PERIODIC PROGRAM FISCAL EXPENDITURE REPORTS

TASK 3: PREPARE PERIODIC PROGRAM FISCAL EXPENDITURE REPORTS ACCORDING TO SCHEDULE

Tasks 2 and 3 are based on the *user needs* specified in Task 1. These needs should indicate desirable *content, format,* and *frequency* of Program fiscal data reports to be issued to the various users.

For illustrative purposes, this guide will present a *sample format* and *sample content* for three types of Program fiscal expenditure reports:

1. *Program Category* Expenditure Report (*general summary data)*
2. *Program* Expenditure Report *(summary data for individual Program)*
3. *Program Element* Expenditure Report *(data for specific Program Element)*

Example: *Program Category* Expenditure Report

PERIODIC PROGRAM CATEGORY EXPENDITURE REPORT

Program Category	Budget ($)	Month-to-date ($)	Year-to-date ($)	Expended (%)	Encumbered ($)	Unencumbered Balance ($)
Policy, Coordination & Control						
Legislative	*62,496*	*5,670*	*52,570*	*84*	*9,926*	*-0-*
Executive	*72,900*	*7,940*	*61,950*	-	--	-
Community	*22,500*	*1,900*	*16,742*	-	--	-
Personnel Serv.	*38,400*	*3,700*	*22,421*	-	--	-
Instructional						
Elem. School A						
Jr. High School A						
Sr. High School A						
Special Education						
Cont. Education						

Example: *Program* Expenditure Report

PERIODIC PROGRAM EXPENDITURE REPORT

	Budget ($)	Month-to-date ($)	Year-to-date ($)	Expended (%)	Encumbered ($)	Unencumbered Balance ($)
High School A	650,455					
Art	14,700	658	9,450	84	12,000	2,700
Business	32,450	1,412	26,725	82	30,000	2,450
Foreign Language	47,900	2,325	31,750	-	--	--
Health, Safety & Physical Ed.	29,630	1,275	--	-	--	--
Industrial Arts						

Example: *Program Element* Expenditure Report

PERIODIC PROGRAM ELEMENT EXPENDITURE REPORT

	Budget ($)	Month to-date ($)	Year to-date ($)	Expended (%)	Encumbered ($)	Unencumbered Balance ($)
Sr. High School A						
Art						
Salaries	9,200	383	3,064	33	9,200	-0-
Supplies	2,100	78	650	30	1,800	300
Equipment	1,400	--	--	-	--	-
Contractual	950	--	--	-	--	-
Other	1,050	--	--	-	--	-
TOTAL	$14,700	$______	$______	______	$______	$______

61700

TASK 4: PROVIDE PROGRAM FISCAL EXPENDITURE REPORTS TO USERS

The interview of users performed in Task 1 resulted, in part, in identification of the *frequency* desired for fiscal expenditure reports. Task 4 requires the School Business Administrator to *establish a schedule* for issuing reports to the various users to respond to their *stated need for frequency* of data.

Note that fiscal expenditure reports should be provided on a "special request" basis as well as periodically. Users should know how to access fiscal expenditure data by request on an "as needed" basis.

PROCEDURE 33 SUMMARY

- Users of Program fiscal data are *identified* and *interviewed.*
- Specific user data needs are determined in terms of *content, format,* and *frequency.*
- Program fiscal expenditure reports are designed to respond to user content and format needs.
- Reports are issued according to a schedule that responds to user frequency needs.
- Fiscal expenditure data are available on a special request basis, as well as periodically.

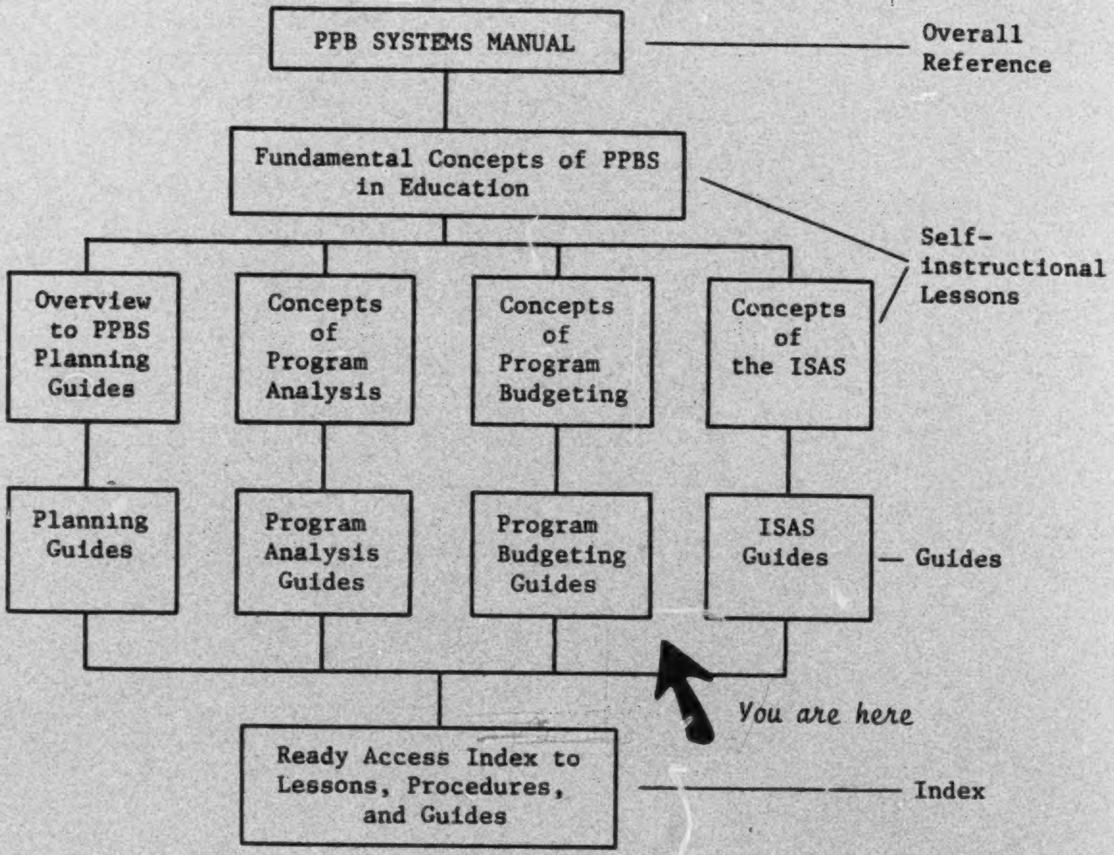
PROGRAM BUDGETING GUIDE #2

for use by the

Assistant Superintendent for
Research and Planning

Guide #2

WESTERN NEW YORK PPBS TRAINING PACKAGE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PROGRAM BUDGETING GUIDE #2

PURPOSES OF THIS GUIDE

Program Budgeting Guide #2 is the second in a series of four guides which combine to assist in the performance of *Budgeting Procedures 30-35*. This guide is specifically designed for use by the Assistant Superintendent for Research and Planning as he prepares a version of the public budget for presentation to the public according to Budgeting Procedure 31.

This is, of necessity, a *general* guide. It presents a model for effective, efficient accomplishment of Procedure 31 which should be appropriate in most school districts, but it is not prescriptive nor "the only way to go."

An understanding of the following terms is most important in the performance of the Budgeting procedures:

Staff Program Budget - *All* annual curricular-fiscal data generated in the Planning, Programming and Budgeting functions.

Public Program Budget - *Summarization* of the relevant content of the staff program budget in a format suitable for public presentation.

District Curricular-Fiscal Plan - Specification of Program objectives, activities, resources, and costs generated annually as a product of the Planning and Programming functions.

Annual Performance Report - Yearly accounting to the district residents of the intended objectives, actual achievements, and costs of each district Program.

NOTE: The Assistant Superintendent for Research and Planning cannot begin work on a public program budget until a *staff program budget* has been produced by the School Business Administrator (Budgeting Guide #1).

PROCEDURE 31: PRESENTING AND EXPLAINING A PROGRAM BUDGET TO SCHOOL DISTRICT RESIDENTS

Accomplished by: Assistant Superintendent for Research and Planning

A *Program Budget* is presented and explained to community residents by performing the following tasks in the sequence indicated. (The "Date Completed" column allows the task list to be used as an actual performance checklist.)

Task	Description	Date Completed
1	Obtain the *staff version* of the proposed Program Budget. (Product of Budgeting Guide #1.)	
2	Design a tentative *format* for the public program budget.	
3	Complete a draft of the public program budget for the Chief School Officer to present to the Board of Education.	
4	Revise public program budget based on the input resulting from Task 3.	
5	Finalize public program budget for approval by the Board of Education.	
6	Submit the revised *public program budget* for approval by the Chief School Officer and the Board of Education.	
7	Review the approved *public program budget* with the District Planning Council.	
8	Develop media and materials (recommended in Task 7) required for dissemination of the public program budget.	
9	Coordinate dissemination of the public program budget.	

These nine tasks are used as *section headings* in this guide. Under each section, accomplishment of each task and coordination with any other roles involved is guided by presentation of *examples, sample worksheets, checklists, formats,* etc.

Note that the guidance provided is *not prescriptive,* but rather a *model* for efficient performance of the tasks involved in Procedure 31 -- Presenting and Explaining a Program Budget to the Public.

TASK 1. OBTAIN STAFF VERSION OF PROPOSED PROGRAM BUDGET

The *staff version* of the proposed Program Budget is the product of Budgeting Guide #1, which focuses on *Budgeting Procedure 30* -- Converting the District's Curricular-Fiscal Plan into a Program Budget. Copies of the staff program budget are obtained from the School Business Administrator.

A *staff program budget* is a massive and very detailed collection of component documents. The checklist below specifies the *minimum* staff program budget input that should be obtained from the School Business Administrator in order to produce a public version of the Program Budget.

Components Checklist - Staff Program Budget

- Completed Form 12 - State and Federal Aid Forecast ☐
- Completed Form 15 - Real Property Valuation Forecast ☐
- Completed Form 17 - District Revenue Forecast ☐
- Completed Form 19 - Schedule of Capital Outlay and Debt Expenditure ☐

- All Form 20 Program Memoranda for district programs ☐
- All Form 21 Cost of Required Resources for district programs ☐

- Completed Form 24 - Estimated Revenue and Expenditure Report ☐
- Completed Form 24A - Program Budget Summary ☐
- Completed Form 25 - Program Budget ☐

The above component documents of the staff program budget are *required input* for the Assistant Superintendent for Research and Planning in presenting and explaining a public version of the Program Budget to the public. Additional components may be included, depending on the specific district implementation of the program budgeting procedures.

Obviously, the staff program budget is too complex and cumbersome for public presentation. It remains, however, the *ultimate resource* for all subsequent budget planning and management activities, and for specific public inquiry.

TASK 2: PREPARE A DRAFT FORMAT FOR THE PUBLIC PROGRAM BUDGET

Given the *staff program budget* in all its bulk and detail, the Assistant Superintendent for Research and Planning must answer these questions:

- What *kinds* of data from the staff program budget are to be summarized for presentation in the public program budget?
- What *format* best provides for summarization and sequence of the data to be presented in the public program budget?

That is, what is the *content* of the public program budget, and what will it *look like?*

While specific content and format will vary greatly from district to district, the general content areas presented below are probably valid in all districts.

Suggested Minimum Content for Public Program Budget

- Total Proposed Budget Cost
- Statement of District's Educational Goals/Philosophy
- Objectives and Total Cost of Each Program and its Component Program Elements
- Summary of Program Budget Statistics (e.g., enrollment, staff, cost per pupil, etc.)
- Summary of District Revenues (e.g., State and Federal Aid)
- Amount of Local Support Required

Other potential content areas for a public program budget include:

- Comparison of Proposed Expenditure in Various Program Categories
- Items of Increase/Decrease and Rationale
- Announcement of Annual School District Meeting for Budget Approval
- Voter Qualification Criteria

A sample public program budget format is presented over the next three pages of this guide.

673 707

[SAMPLE FORMAT]

ILLUSTRATIVE
PROGRAM BUDGET OUTLINE
FOR A SCHOOL DISTRICT

I. School District Philosophy

II. Program Categories

A. Policy, Coordination and Control

1. Executive

Goals
Objectives
Activities
Cost $________________

2. Legislative

Goals
Objectives
Activities
Cost $________________

3. Community

Goals
Objectives
Activities
Cost $________________

Subtotal $______________

B. Instruction

1. High School

Goals
Objectives
Activities
Cost $________________

2. Elementary School A

Goals
Objectives
Activities
Cost $________________

[SAMPLE FORMAT]

II. B. Instruction (continued)

3. Elementary School B

Goals
Objectives
Activities
Cost $________________

4. Summer School

Goals
Objectives
Activities
Cost $________________

5. Continuing Education

Goals
Objectives
Activities
Cost $________________

Subtotal $________________

C. Instructional Support

1. Guidance Services

Goals
Objectives
Activities
Cost $________________

2. Health Services

Goals
Objectives
Activities
Cost $________________

Subtotal $________________

D. Operational Support

1. Business Services

Goals
Objectives
Activities
Cost $________________

Subtotal $________________

[SAMPLE FORMAT]

II. D. Operational Support (continued)

2. Transportation Services

Goals
Objectives
Activities
Cost $__________________

3. Food Services

Goals
Objectives
Activities
Cost $__________________

Subtotal $______________

Total Expenditures $______________

TASK 3: COMPLETE A DRAFT OF THE PUBLIC PROGRAM BUDGET FOR THE CHIEF SCHOOL OFFICER TO REVIEW WITH THE SCHOOL BOARD

Once the Assistant Superintendent for Research and Planning has decided on *content* and *format* of the public program budget, he must complete a first draft for review by the Chief School Officer with the School Board.

Completing this first draft of the public program budget involves "filling in" the specified content areas according to the format selected. Remember that the data are *summarized* for public presentation.

The following decision table aids in locating various data included in the *staff program budget* to be summarized in the *public program budget*.

IF Content of the *Public Program Budget* is: →	THEN refer to the following component of the *staff program budget:*
- Total proposed budget cost	Form 25 - Program Budget
- District goals/philosophy	Board of Education policy statements
- Program/Program Element objectives	Various Form 20's - Program Memoranda
- Program/Program Element cost	Various Form 21's - Quantity and Cost of Resources
- Program Budget statistics	Form 24A - Program Budget Summary
- Summary of district revenue	Forms 12, 15, 17, and 24
- Amount of local support required	Form 24 - Estimated Revenue and Expenditure Report

When a first draft of the public program budget has been completed, it is presented to the *Chief School Officer* for review with the Board of Education.

TASK 4: REVISE PUBLIC PROGRAM BUDGET BASED ON INPUT FROM CHIEF SCHOOL OFFICER/BOARD OF EDUCATION REVIEW

Based on the review of the draft public program budget, the Assistant Superintendent for Research and Planning may have to make the following kinds of revisions:

- Revision in content - Board of Education felt that content was lacking in detail, too much detail, omitted desirable data, included unnecessary data, was inaccurate, etc.

- Revision in format - Board of Education felt that format was too sophisticated, too juvenile, content improperly sequenced, ineffective, trite, etc.

Whatever the nature of the input, it is the responsibility of the Assistant Superintendent for Research and Planning to revise the public program budget accordingly, until it meets the criteria for approval specified by the Board of Education and the Chief School Officer.

TASK 5: FINALIZE PUBLIC PROGRAM BUDGET FOR APPROVAL BY BOARD OF EDUCATION

When the revisions in *Task 4* are complete, the Assistant Superintendent for Research and Planning reviews the revised public program budget for *accuracy* and *completeness* of content, and *adherence* to desired format.

TASK 6: SUBMIT REVISED PUBLIC PROGRAM BUDGET FOR APPROVAL BY BOARD OF EDUCATION

After the final check in Task 5, the Assistant Superintendent for Research and Planning presents the revised version of the public program budget to the Chief School Officer for recommendation to the Board of Education. Chances are increased that the Board will approve the Program Budget without requiring further redesign.

TASK 7: REVIEW THE APPROVED PROGRAM BUDGET WITH THE DISTRICT PLANNING COUNCIL

When the Board of Education and the Chief School Officer have approved the revised public program budget for presentation to district residents (Task 6), the Assistant Superintendent for Research and Planning is required to schedule a meeting with the *District Planning Council (DPC)*.

The DPC is composed of various district citizens who have been identified as *community opinion leaders* and have agreed to serve as members of the DPC in the interests of bettering district schools.

The DPC is responsible for the following activities:

- Review of long-range district curricular/fiscal needs.
- Liaison between the Board of Education and the public.
- Sounding board for long-range district educational plans.
- Annual budget review and recommendation for revision.
- Assistance in disseminating the public program budget.
- Review of Board of Education's district objectives and priorities.

(For a more detailed function description, see *Function #2* in the PPBS Manual.)

The *purpose* of the meeting between the Assistant Superintendent for Research and Planning and the DPC is to review the revised public program budget.

The *product* of the meeting is a preliminary dissemination plan for communicating the public program budget to the district population. The plan should include:

- Suggested *community groups* to which public program budget can be presented.
- Suggested *presentation media* (e.g., radio, newspaper, direct mail, A-V group presentation, etc.)
- Suggested *dissemination activity calendar* to schedule press releases, group meetings, etc.

A suggested agenda for the DPC meeting with the Assistant Superintendent for Research and Planning is presented on the following page.

Smithfield District Planning Council

TO: All members of the DPC

FROM: Harlan Jackson, Chairman

RE: Meeting to Review Proposed Public Program Budget

1. The Smithfield District Planning Council will meet on *Thursday, May 9, 1973* at *7:00 p.m.* in the *Staff Lounge* at *Lakeridge Elementary School.*

2. Purpose of the meeting is to review and suggest a dissemination plan for the proposed public program budget for Smithfield schools.

3. Agenda:

   - Presentation and explanation of the proposed public program budget by R. H. Sikes, Assistant Superintendent for Planning and Research.

   - General discussion of the proposed public budget.

   - Identification of community groups to which to present the public program budget.

   - Discussion on desirable available presentation media for dissemination of the public budget.

   - Development of a tentative *dissemination activity calendar* to schedule presentation of the budget to the public.

Working from the input provided by the DPC at this meeting, Mr. Sikes will finalize and carry out a dissemination plan for presentation of the public program budget to community residents prior to public vote on the budget at the Annual School District Meeting on June 26.

Harlan Jackson
Harlan Jackson, Chairman
Smithfield DPC

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TASK 8: DEVELOP MEDIA AND MATERIALS FOR DISSEMINATION OF PUBLIC PROGRAM BUDGET

Accomplishment of Task 7 allows the Assistant Superintendent to specify *what media must be developed* for dissemination of the public program budget to the community residents.

He must then coordinate preparation of that media so that it will be available for implementation according to schedule.

Various dissemination media might include, but are not limited to:

- Press releases for radio and TV
- Press releases for newspapers
- Direct mail brochure
- OH transparencies and script
- Slide-tape presentation
- Radio, TV, and newspaper interviews
- Mimeo report for school take-home
- Scripts, speeches, and presentation outlines for use at public meetings

Again, there is no presentation medium that can be prescribed as correct for all district situations. Population size, availability of local mass media, budget, etc. will all bear on the media selected for dissemination of the public program budget.

> The "right" dissemination media are those that communicate the public program budget most effectively to the greatest portion of the district population.

In coordinating the development of selected dissemination media, the Assistant Superintendent for Research and Planning should involve those district capabilities which can best provide the necessary services. This might include the district public relations office, graphic arts center, A-V coordinator, etc.

TASK 9: COORDINATE DISSEMINATION OF PUBLIC PROGRAM BUDGET

To this point, the Assistant Superintendent for Research and Planning has accomplished, or coordinated the accomplishment of, these tasks:

1. Obtained the *staff version* of the proposed program budget.
2. Prepared a draft of the format of the *public version* of the Program Budget.
3. Completed a draft of the *actual public program budget* for the Chief School Officer to present to the Board of Education.
4. Revised the public program budget based on input resulting from Task 3.
5. Finalized public program budget for approval by the Chief School Officer and the Board of Education.
6. Submitted the revised public program budget to the Chief School Officer and the Board of Education for approval.
7. Reviewed the approved public program budget with the District Planning Council.
8. Developed media and materials recommended by the DPC required for dissemination of public program budget.

The final task is to *coordinate the dissemination* of the public budget according to the dissemination schedule established in Task 7, and by means of the media developed in Task 8. This involves coordinating the proper presentation media with the schedule presentation activity.

A sample dissemination schedule is presented on the following page as a model coordination tool.

EDGEMERE SCHOOLS PUBLIC BUDGET PRESENTATION SCHEDULE

June 1973

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4 Lion's Club 7:00 p.m. Media: Slide-tape	5 News releases to newspapers, radio & TV	6 WGAY-TV News int. 3:30 p.m.	7 Kiwanis luncheon 12:00 Media: Flip Chart	8 League of Women Voters, 7:30 pm Media: Script	9
10	11 Mass mailing of budget brochure	12 School take-home brochure	13 WROM radio interview 1:30 p.m.	14 Woodlake Civic Assn. Media: OH and script	15 Town Council Meeting - 7:30 p.m. Media: Slide-tape	16 Elkton Shopping Center display, 10-3 booth, posters brochures
17	18 Follow-up releases to newspapers, radio, TV	19	20 Press Conference 11:30 a.m.	21 Voter reminder mailing	22 Voter reminder school take-home	23 " "
24 WGAY-TV panel show Media: Slides	25	26 Annual District Meeting 7:00 p.m.	27	28	29	30

- It is important to record community reaction to the proposed public budget as it is disseminated at various meetings.

- The Board of Education is responsible for presentation of the proposed public budget at the annual district meeting.

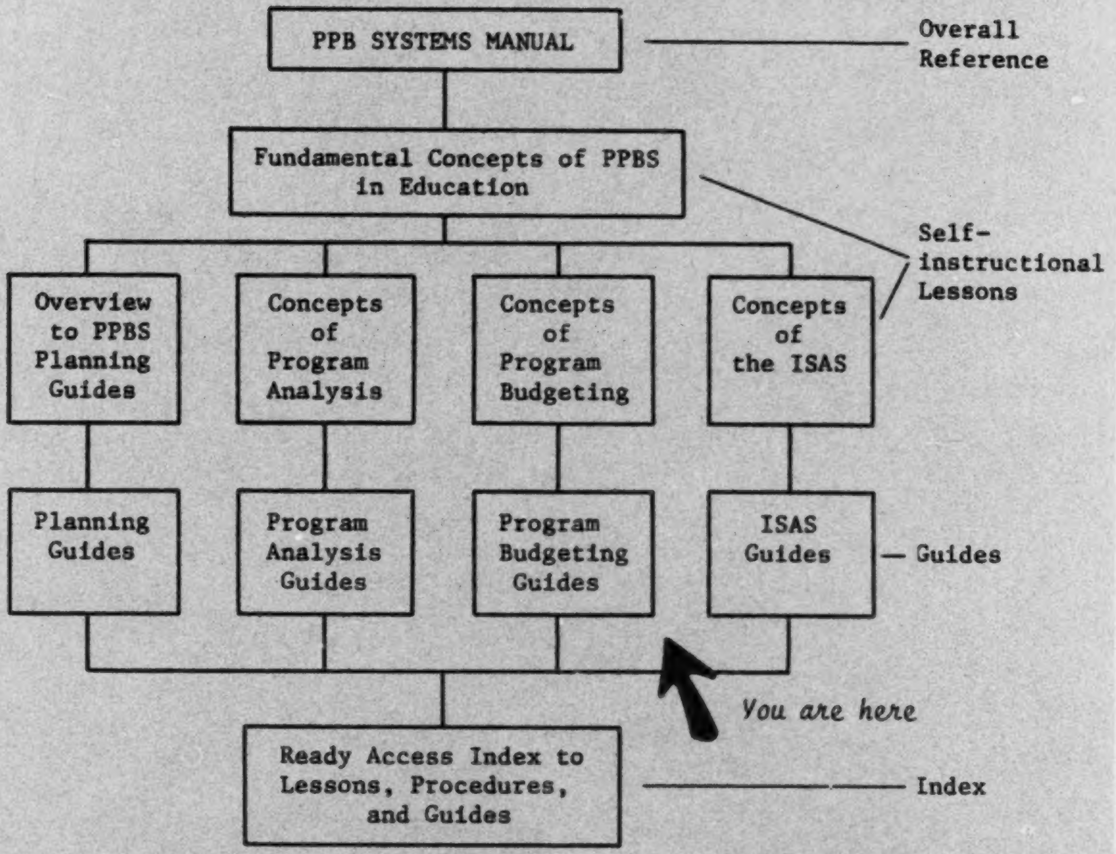
PROGRAM BUDGETING GUIDE #3

for use by the

Educational Planning Council

Guide #3

WESTERN NEW YORK PPBS TRAINING PACKAGE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PROGRAM BUDGETING GUIDE #3

PURPOSES OF THIS GUIDE

Program Budgeting Guide #3 is the third in a series of four guides which aid the performance of Budgeting Procedures 30-35. This guide is *specifically designed* for the use of the *Educational Planning Council (EPC)*. The *EPC* consists of the Chief School Officer, Assistant Superintendent for Research and Planning, the School Business Administrator, and Program Directors. It is specifically responsible for coordinating the performance of Budgeting Procedure 34.

Of necessity, this guide is *general* in nature. That is, a *model* for effective, efficient accomplishment of Procedure 34 is presented which should prove applicable to most school district situations. It is not a prescriptive model, however, and users of this guide should modify it as required by the constraints of their particular situation.

An understanding of the following terms is important in the performance of the Budgeting Procedures:

Staff Program Budget - *All* annual curricular-fiscal data generated in the Planning, Programming, and Budgeting functions.

Public Program Budget - *Summarization* of the relevant content of the staff program budget in a format suitable for public presentation.

District Curricular-Fiscal Plan - Specification of Program objectives, activities, resources, and costs generated annually as a product of the Planning and Programming functions.

Annual Performance Report - Yearly accounting to the district residents of the intended objectives, actual achievements, and costs of each district Program.

PROCEDURE 34: PREPARING AND PRESENTING ANNUAL CURRICULAR-FISCAL PERFORMANCE REPORT TO THE PUBLIC

Accomplished by: Educational Planning Council

While Procedure 34 involves several roles in its completion, it is clearly the *Educational Planning Council* that is responsible for developing an annual C-F performance report for dissemination to the public. This means that the Educational Planning Council, consisting of the *Chief School Officer, Assistant Superintendent for Research and Planning, the School Business Administrator,* and *Program Directors*, must coordinate the various roles involved in accomplishing Procedure 34.

The Educational Planning Council accomplishes the preparation and presentation of the annual C-F report to the public through performance of the following tasks. (The "Date Completed" column allows the task list to be used as an actual performance checklist.)

Task	Description	Date Completed
1	Direct *Program Element Coordinators* to prepare Effectiveness and Expenditure Reports and to submit them to their Program Director.	____________
2	*Program Directors* review all Effectiveness and Expenditure Reports for component Program Elements of their Program.	____________
3	*Program Directors* prepare a *Summary* Effectiveness and Expenditure Report for their Program.	____________
4	Obtain copies of past year's Program Budget and Program Memoranda.	____________
5	Review Summary Program Effectiveness and Expenditure Reports in light of Program Budget and Program Memoranda.	____________
6	Develop and recommend a district C-F performance report to Chief School Officer for public dissemination.	____________

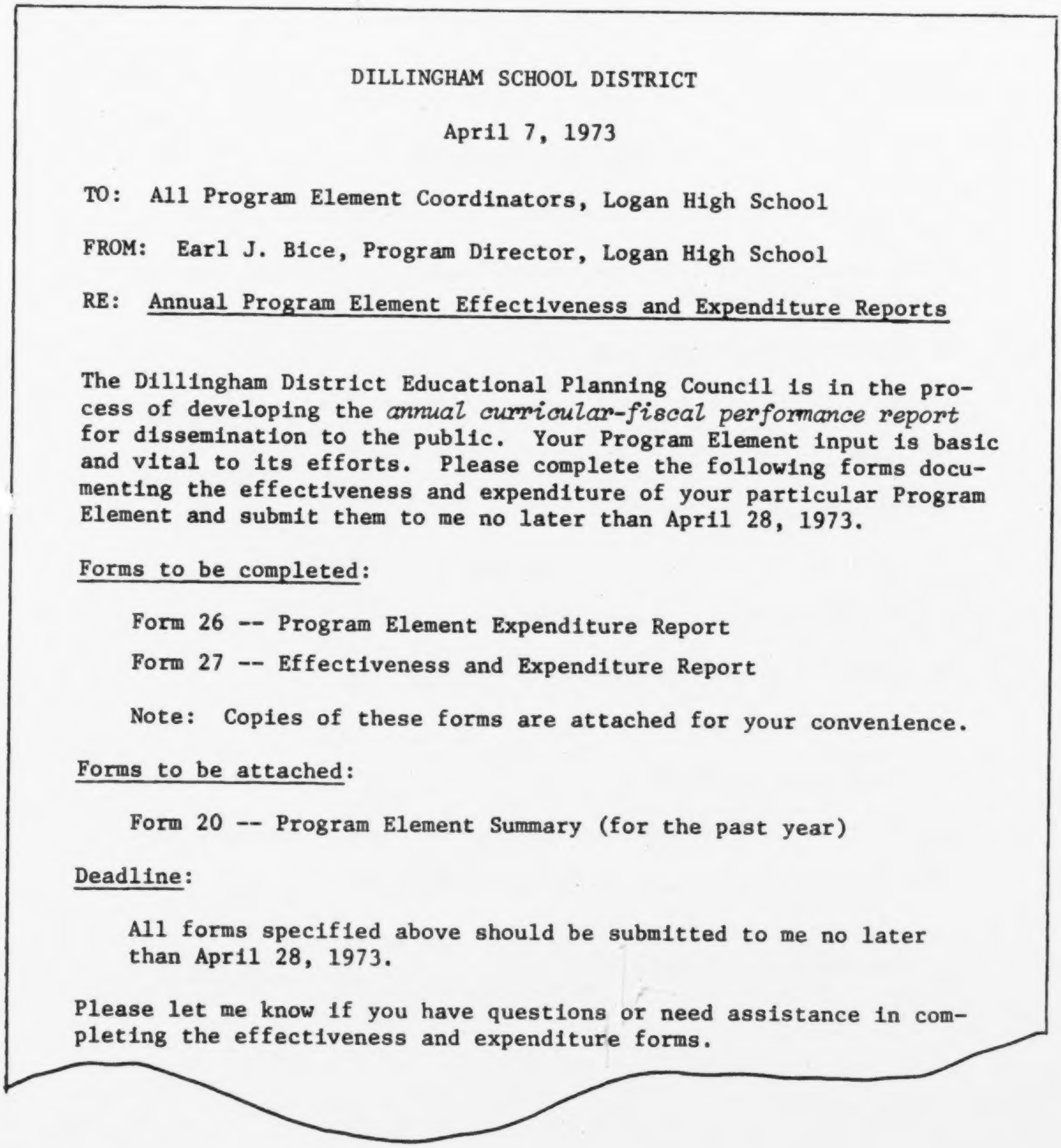
The six tasks listed above are used as section headings in this guide. Under each section, task accomplishment and/or coordination with any other roles involved is guided by presentation of *examples, sample worksheets, formats, etc.*

Note that the guidance provided is *not prescriptive,* but rather one *model* for efficient development of the annual C-F performance report to the public.

TASK 1: DIRECT PROGRAM ELEMENT COORDINATORS TO PREPARE EFFECTIVENESS AND EXPENDITURE REPORTS AND SUBMIT THEM TO THEIR PROGRAM DIRECTOR.

Task 1 is accomplished by a memo, such as the one presented below, from each Program Director to the various Program Element Coordinators within his Program.

SAMPLE MEMO



DILLINGHAM SCHOOL DISTRICT

April 7, 1973

TO: All Program Element Coordinators, Logan High School

FROM: Earl J. Bice, Program Director, Logan High School

RE: Annual Program Element Effectiveness and Expenditure Reports

The Dillingham District Educational Planning Council is in the process of developing the *annual curricular-fiscal performance report* for dissemination to the public. Your Program Element input is basic and vital to its efforts. Please complete the following forms documenting the effectiveness and expenditure of your particular Program Element and submit them to me no later than April 28, 1973.

Forms to be completed:

Form 26 -- Program Element Expenditure Report

Form 27 -- Effectiveness and Expenditure Report

Note: Copies of these forms are attached for your convenience.

Forms to be attached:

Form 20 -- Program Element Summary (for the past year)

Deadline:

All forms specified above should be submitted to me no later than April 28, 1973.

Please let me know if you have questions or need assistance in completing the effectiveness and expenditure forms.

TASK 2: PROGRAM DIRECTORS REVIEW ALL EFFECTIVENESS AND EXPENDITURE REPORTS FOR COMPONENT PROGRAM ELEMENTS OF THEIR PROGRAM.

Recall that *Program Directors* are members of the Educational Planning Council. The review indicated in Task 2 results in an initial summarization of input from which the Educational Planning Council will develop the annual C-F performance report to the public. The review is performed by the Program Directors on the Programs for which they are responsible. Each Program Director documents his summarization of effectiveness and expenditure data as indicated in Task 3, by constructing summary Forms 26 and 27 for his Program.

The checklist below is designed to aid the Program Director in his review of the Program Element effectiveness and expenditure data.

Criteria Checklist

Program Element Effectiveness and Expenditure Review

1. All necessary input received for all component Program Elements - Forms 20, 26, and 27. ☐
2. All submitted forms complete. ☐
3. Each *Form 20* Program Element Summary reviewed for: ☐
    - Specific objectives ________
    - Methods of measure ________
    - Activities/experiences to achieve objectives ________
4. Each *Form 26* Program Element Expenditure Report reviewed for: ☐
    - Accuracy of budget amounts ________
    - Accuracy of computation ________
    - Additional comments ________
5. Each *Form 27* Effectiveness and Expenditure Report reviewed for: ☐
    - Deviation from plans described in Form 20 ________
    - Consistency of stated objectives and methods of measure with Form 20 ________

TASK 3: PROGRAM DIRECTORS PREPARE A SUMMARY EFFECTIVENESS AND EXPENDITURE REPORT FOR THEIR PROGRAMS

Task 3 follows logically out of the review of Program Element input performed in Task 2. Once the review of *all effectiveness and expenditure forms* for *each Program Element* of his Program has been completed, the Program Director summarizes the input *at the Program level*.

The *products* of Task 3 are a summary effectivness report (Form 27) and a summary expenditure report (Form 26) for the specific Program administered by the Program Director.

CONSTRUCTING A SUMMARY FORM 26 -- Program Expenditure Report

1. Compute and total *budgeted amounts* and *expended and/or encumbered to date amounts* from the various Program Element Form 26's for each expenditure category and subcategory.
2. Enter the totals on the summary Form 26.
3. Compute and record the *unencumbered balance* in the column provided on Form 26.

EXAMPLE: Here is an illustration of 1-3 above in the Personnel category and subcategories:

Expenditure Category	Budgeted Amount	Expended and/or Encumbered to Date	Unencumbered Balance
PERSONNEL			
Administrators	$ 65,000	$ 65,000	--
Teachers	240,000	231,000	$ 9,000
Teacher Aides	56,000	47,500	8,500
Consultant	15,000	9,000	6,000
Maintenance	19,500	19,500	--
Clerical	14,500	14,500	--
Other - Cafeteria	30,000	30,000	--
Subtotal	440,000	416,500	23,500

4. Perform 1-3 for Personnel, Equipment, Supplies, and "other" expenditure categories and subcategories on the summary Form 26.

5. Compute and enter totals for all categories in *Budgeted Amount*, *Expended/Encumbered*, and *Unencumbered Balance* columns on summary Form 26.

6. Enter any relevant comments in the space provided.

CONSTRUCTING A SUMMARY FORM 27 -- Effectiveness and Expenditure Report

> The *sample* Form 27 on the following page provides reference and guidance in completing the required five items of a summary Form 27.

FORM 27

EFFECTIVENESS AND EXPENDITURE REPORT

Date ________________________________

District ________________________________

Person Completing ________________________________

Program Element or Program

____

Instructions:

1. Complete the five following statements for your Program Element or Program.
2. Attach an appropriate copy of the past year's Program Element Summary or Program Memorandum (Form 20).
3. Attach an Expenditure Report (appropriate Form 26).

---

1. Indicate what activities (if any) were changed from the planned activities for the past year.

   [From review of Program Element Form 27's, identify all Program Elements where activities were changed from those planned. Briefly describe the nature of the activity change.]

2. List the objectives, the measures of effectiveness used, and the achievements during the past year.

   [From Program Director's copy of Form 20 Program Memorandum, enter the following data:

   Program Objectives - Form 20, Item 1A
   Measures of Effectiveness - Form 20, Item 1B

   From Program Element Form 27's, summarize actual achievement over the school year.]

3. List the strong aspects of the Program Element or Program.

   [From review of Program Element Form 27's, identify those Program Elements meeting or exceeding their objectives.]

4. List the areas in need of improvement.

   [From review of Program Element Form 27's, identify those Program Elements not meeting their objectives.]

5. List the things that are now being done to improve the Program Element or Program.

   [From review of Program Element Form 27's, summarize action currently underway to improve the Program.]

The checklist below is designed to aid the Program Director in a final check of the Summary Forms 26 and 27 that he has constructed as a report on his Program's effectiveness and expenditure.

Criteria Checklist

Summary of Program Effectiveness and Expenditure

1. Input data (Forms 26 and 27) reviewed for *each component Program Element* of the Program. ☐
2. Historical data (Form 20) for the past year reviewed for *each component Program Element* of the Program. ☐
3. Summary Form 26 - *Program Expenditure Report* - constructed: ☐
   - Amounts in *Budgeted Amount* and *Expended/Encumbered* columns reflect total of *all* component Program Elements. ________
   - Subtotal in each expenditure category includes *all* component Program Element cost input. ________
   - Computation of *Unencumbered Balance* column correct. ________
4. Summary Form 27 - *Program Effectiveness and Expenditure Report* - constructed: ☐
   - All *changes in planned activities* described and identified by Program Element (Item 1). ________
   - Program *objectives, measures of effectiveness,* and *actual achievement* during past year specified (Item 2). ________
   - Program Elements *meeting or exceeding* objectives identified. ________
   - Program Elements *not meeting* objectives identified. ________
   - Current action to improve Program specified. ________

After a final check of the completeness and accuracy, Summary Forms 26 and 27 are forwarded to the *Educational Planning Council* for review.

TASK 4: OBTAIN COPIES OF PAST YEAR'S PROGRAM BUDGET AND PROGRAM MEMORANDA

In preparation for review of the Summary Program Effectiveness and Expenditure Reports, the Educational Planning Council must obtain copies of the past year's Program Budget and copies of all Form 20 Program Memoranda.

Document:	Obtained from:
• Program Budget (past year)	-- School Business Administrator
• Program Memoranda - Form 20 for all district Programs	-- Program Directors

Both the *School Business Administrator* and the *Program Directors* are members of the Educational Planning Council, and so obtaining the required documents should result from a simple verbal request that they be provided.

TASK 5: REVIEW SUMMARY PROGRAM EFFECTIVENESS AND EXPENDITURE REPORTS IN LIGHT OF PROGRAM BUDGET AND PROGRAM MEMORANDA

As a first step in developing an annual curricular-fiscal performance report for presentation to the public, the Educational Planning Council must review *each Summary Program Effectiveness and Expenditure Report* against its *plans and objectives* (Form 20 Program Memoranda) and its *funding* (Program Budget).

There is no hard-and-fast model for the kind of review indicated in Task 5. The number of Programs, amount of change from planned activity, success or failure in meeting objectives, and funds budgeted and expended will vary from district to district. However, there are certain identifiable points that the review should include in all districts.

A *general model* for use by the Educational Planning Council, in its review of the various Program Effectiveness and Expenditure Reports, is presented on the following page.

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REVIEW OF PROGRAM EFFECTIVENESS AND EXPENDITURE REPORTS

for use by the

EDUCATIONAL PLANNING COUNCIL

Purpose of the Review: To examine effectiveness and expenditure data for each district Program in light of its Program Memoranda and the district Program Budget for the past year.

Critical Review Points:

- Are *all data required* for the review on hand? ☐
  - Form 26 - Program Expenditure Report ________
  - Form 27 - Program Effectiveness and Expenditure Report ________
  - Form 20 - Program Memoranda ________
  - District Program Budget for the Past Year ________
- Do the *amounts budgeted* for the Program agree with the data presented on the Form 26? ☐
- Do the *objectives* and *methods of measure* specified in the Form 20 agree with those presented on the Form 27? ☐
- Was the Program *over-* or *under*budget for the past year's operation? ☐
- Did the Program *meet its objectives* for the past year? ☐
- What *specific achievement* resulted from the Program over the past year? ☐
- Were any *interim changes* made in the planned Program activities specified in the Form 20? ☐
- What were the *strengths* and *weaknesses* of the Program over the past year? ☐
- What *is being done*, or *will be done*, to improve the Program? ☐

> The critical review points above should be considered for each district Program in the Educational Planning Council's review of effectiveness and expenditure.

6,95

TASK 6: DEVELOP AND RECOMMEND A DISTRICT C-F PERFORMANCE REPORT TO THE CHIEF SCHOOL OFFICER FOR PUBLIC DISSEMINATION

Given the various Program Effectiveness and Expenditure Reports constructed by the Program Directors, and following a review of each Program report in light of Program Memoranda and Program Budget data, the Educational Planning Council is responsible for developing a *district-wide curricular-fiscal performance report for public presentation.* Whereas the public program budget (Budgeting Guide #2) communicates *projected* district educational goals and their achievement and cost, the C-F performance report to the public annually reports the district's *actual* achievement of those goals, and their *actual* cost.

In accomplishing Task 6, the Educational Planning Council must decide on the *content* of the C-F performance report, construct a draft of the report, and submit it to the *Chief School Officer.* The Chief School Officer, in turn, recommends the C-F performance report to the *Board of Education,* which is responsible for any necessary revision and dissemination to the public.

While specific content and format of the annual C-F performance report will vary greatly from district to district, the general content areas presented below are probably valid in any school system.

Suggested Minimum Content for Annual C-F Performance Report

- Form 26 - Program Expenditure Report - Shows amount budgeted, amount expended/encumbered, and unencumbered balance for each district Program.
- Form 27 - District Effectiveness Report - Uses five items of Form 27 to report effectiveness at the district level:
  - Specifies any *changes* in educational activities that occurred over the past year by Program.
  - Summarizes each Program's *objectives, achievement of those objectives* over the past year, and *how that achievement was measured.*
  - Summarizes *strengths* of each Program (e.g., meeting or exceeding objectives, underbudget, etc.).
  - Identifies Programs in need of improvement (e.g., not meeting objectives, overbudget, etc.).
  - Describes actions now in effect, or planned to improve deficient Programs (e.g., ISAS study, alternative activities, etc.).

Additional content can be added, based on the specific district situation. When the Educational Planning Council has completed its draft of the annual C-F performance report (Summary Forms 26 and 27), it forwards the report to the *Chief School Officer* who presents it to the Board of Education for approval and public dissemination.

Sample Forms 26 and 27 are presented on the two following pages.

Form 26

PROGRAM EXPENDITURE REPORT

Date ____________________ for ____________________

Program

District ____________________

Person Completing ____________________ Inclusive Dates ________ to ________

Instructions:

1. Complete this form for each program.
2. Record comments to explain progress to date.
3. Send to chief school officer.

Program[1]	Budgeted Amount	Expended and/or Encumbered to Date	Unencumbered Balance
High School A	--------	--------	--------
High School B	--------	--------	--------
Elementary School A	--------	--------	--------
Elementary School B	--------	--------	--------
Business Services	--------	--------	--------
Guidance Services	--------	--------	--------

Comments:

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[1] Illustrative only

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Form 27

EFFECTIVENESS AND EXPENDITURE REPORT

Date ____________________

District ____________________

Person Completing ____________________

Program Element or Program ____________________

Instructions:

1. Complete the five following statements for your Program Element or Program.
2. Attach an appropriate copy of the past year's Program Element Summary or Program Memorandum (Form 20).
3. Attach an Expenditure Report (appropriate Form 26).

---

1. Indicate what activities (if any) were changed from the planned activities for the past year.

2. List the objectives, the measures of effectiveness used, and the achievement during the past year.

3. List the strong aspects of the Program Element or Program.

4. List the areas in need of improvement.

5. List the things that are now being done to improve the Program Element or Program.

PROGRAM BUDGETING GUIDE #4

for use by the

School Business Administrator

Assistant Superintendent for Research and Planning

Guide #4

734

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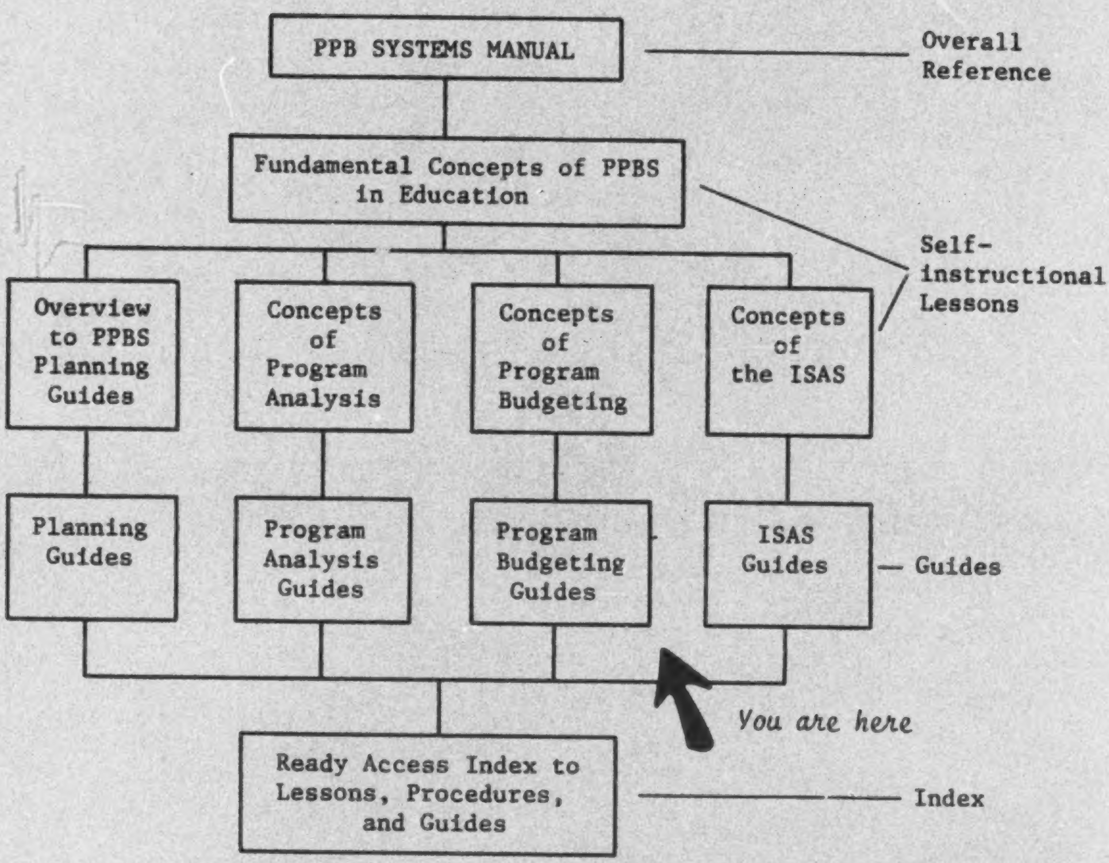
WESTERN NEW YORK PPBS TRAINING PACKAGE


PPB SYSTEMS MANUAL
Overall Reference
Fundamental Concepts of PPBS in Education
Self-instructional Lessons
Overview to PPBS Planning Guides
Concepts of Program Analysis
Concepts of Program Budgeting
Concepts of the ISAS
Planning Guides
Program Analysis Guides
Program Budgeting Guides
ISAS Guides
Guides
You are here
Ready Access Index to Lessons, Procedures, and Guides
Index

PROGRAM BUDGETING GUIDE #4

PURPOSES OF THIS GUIDE

Program Budgeting Guide #4 is the last in a series of four guides which combine to assist in the performance of *Budgeting Procedures 30-35*. It is specifically designed for use by the *School Business Administrator* and the *Assistant Superintendent for Research and Planning* as they work together to develop an *account code structure* for relating a line-item budget to a Program Budget. (Budgeting Procedure 35.)

This guide presents an *illustrative model* which has proven effective and efficient in the developmental phase of the Western New York PPBS Model. Note that the model is illustrative, and not intended to be a prescriptive "how to do it" dictate.

An understanding of the following terms is important in the performance of the Budgeting procedures:

- Staff Program Budget - All annual curricular-fiscal data generated in the Planning, Programming, and Budgeting functions.

- Public Program Budget - Summarization of the relevant content of the staff program budget in a format suitable for public presentation.

- District Curricular-Fiscal Plan - Specification of Program objectives, activities, resources, and costs generated annually as a product of the Planning and Programming functions.

- Annual Performance Report - Yearly accounting to the district residents of the intended objectives, actual achievements, and costs of each district Program.

The Procedure 35 work-flow diagram on the following page is designed as a "roadmap" for the work required. Content of the guide is keyed to the tasks and sequence presented in the diagram.

BUDGETING PROCEDURE 35: DESIGNING A CODING STRUCTURE FOR RELATING A LINE-ITEM BUDGET TO A PROGRAM BUDGET

SCHOOL BUSINESS ADMINISTRATOR	ASSISTANT SUPERINTENDENT FOR RESEARCH AND PLANNING	CHIEF SCHOOL OFFICER
1. Analyzes current account codes, legal requirements, and Program Structure.		
2. Compiles preliminary requirements for new account code.		
	3. Interviews users of line-item and Program Budget documents to determine user needs.	
4. Develops objectives for new account code based on 1-3.		
5. Designs account code structure to meet objectives developed in #4.		
	6. Reviews account code with users for completeness and accuracy.	
	7. Determines changes in present documents and number codes required by new system.	
		8. Approves new account code and required changes.
	9. Implements new account code structure.	

ANALYZE CURRENT ACCOUNT CODES, LEGAL REQUIREMENTS, AND PROGRAM STRUCTURE
Flow Chart Step 1

Analysis of the documents specified in Step 1 of the Procedure 35 Flow Chart is performed by the *School Business Administrator* as input for the design of a new coding structure to relate a line-item budget to a Program Budget.

The following tasks are required in performing that analysis:

1. Obtain a chart of current line-item account codes.

Example:

Line-Item Account Codes

Westbrook Elementary School	Function	Object
Kindergarten		
Teachers Salaries	220	111
Fringe Benefits	220	611
Supplies (Instructional)	220	301
Equipment (Instructional)	220	200
Field Trips	220	495

2. Obtain and analyze state/local legal requirements for line-item accounting.

Example:

Uniform System of School District Accounts

obtained from:

New York State Department of Audit and Control
Division of Municipal Affairs
Albany, New York

(NOTE: *Local* district requirements for line-item accounting vary greatly with location.)

3. Obtain a copy of the school district's *program structure*.

This can be obtained from the Assistant Superintendent for Research and Planning.

Example:

Warrenville School District

Program Structure - 1974-75

Program Category -- Policy, Control, Coordination

Program -- Legislative

Program Element -- Operational Support
- Officers
  - Clerk
  - Treasurer
  - Attorney
- Annual Meeting Expenses
- Supplies
- Equipment

Program Category -- Instructional

Program -- Westbrook Elementary School

Program Elements -- Kindergarten
- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Grade 5
- Grade 6

COMPILE PRELIMINARY REQUIREMENTS FOR NEW ACCOUNT CODE - Flow Chart Step 2

Having collected and reviewed the documents specified in *Flow Chart Step 1*, the School Business Administrator then drafts a listing of the *preliminary requirements* for the new account code. These requirements are based on the specific content of the input documents.

Input Document	*General Account Code Requirements*
Current Line-Item Account Codes	Must include all accounts described in the current codes.
State/Local Legal Requirements	Must meet all state and local legal requirements for line-item accounting.
Program Structure	Must provide for accounting of all specified Program Categories, Programs, and Program Elements.

Obviously, the requirements for the new account codes will vary from district to district, depending on the data contained in the various input documents.

NOTE: The account code requirements drafted at this point by the School Business Administrator are to make sure that the account code is *complete in content* and *meets existing legal requirements*.

Assistant Superintendent
for Research/Planning

INTERVIEW USERS OF LINE ITEM AND PROGRAM BUDGET DOCUMENTS TO DETERMINE USER NEEDS - Flow Chart Step 3

In Steps 1 and 2 of the Procedure 35 flow chart, the School Business Administrator *determines preliminary requirements* for the new account code by examining the current code, legal requirements, and the district Program Structure.

In Step 3, the Assistant Superintendent for Research and Planning *interviews users* of line-item and Program Budget documents to *determine their needs* in terms of a new account code.

The results of Steps 1, 2, and 3 will be synthesized in the next step of Procedure 35, which results in objectives for the new account code.

Users of line-item and Program Budget documents that the Assistant Superintendent for Research and Planning should interview include:

- Chief School Officer
- Program Directors
- Program Element Coordinators

The purpose of the interview is to determine what their *needs* are in terms of an account code that will serve to relate line-item budget documents to a Program Budget.

Some sample interview questions might include:

1. What line-item or Program Budget documents do you now use in managing district Programs?
2. What are the deficiencies of the present account code system?
3. How might those deficiencies be remedied in a new account code system?
4. What should a new account code system enable you to do in managing district Programs that you cannot do now?

User needs should be recorded and categorized by role (Chief School Officer, Program Director, etc.).

When interviews are completed, user needs should be forwarded to the School Business Administrator as input for Flow Chart Step 4.

DEVELOP OBJECTIVES FOR NEW ACCOUNT CODE - Flow Chart Step 4

Flow Chart Step 4 of Budgeting Procedure 35 requires the development of *objectives* for a new account code based on the data collected in Steps 1, 2, and 3. The objectives are drafted by the School Business Administrator.

INPUT FOR ACCOUNT CODE OBJECTIVES

Flow Chart Step	Data Collected	Input
1 & 2	Current account codes.	Design and content of present code.
	State/local legal requirements	Legal requirements for new account code.
	District Program Structure	Existing or new accounts to be related to line-item account code.
3	User needs.	Needs/deficiencies to be remedied by new account code.

The objectives drafted for the new code by the School Business Administrator have two purposes:

1. To *guide the design* of an account code structure to meet the objectives.
2. To *serve as a basis for dissemination/training* activities on the new account code system.

While the objectives are primarily for the use of the School Business Administrator and the Assistant Superintendent for Research and Planning, they will be most helpful if they adhere to the model for good objectives. Accordingly to that model, the account code objectives should be:

- Precise and measurable in terminology.
- Specify what performance the account code will facilitate.
- Specify the criteria of that performance.

Sample account code objectives might include:

A. The account code will establish a 12-digit coding structure to aid in relating the district's current 282 line-item function-object accounts to the funds, Program Categories, Programs, and Program Elements specified in the district's Program Structure.

B. The account code will enable quick identification of account components, as follows:
   - Fund -- Single-letter indicator
   - Program Category -- Single-digit indicator
   - Program -- Two-digit indicator
   - Program Element -- Two-digit indicator
   - Function -- Three-digit indicator
   - Object -- Three-digit indicator

C. Etc.

DESIGN ACCOUNT CODE STRUCTURE TO MEET OBJECTIVES - Flow Chart Step 5

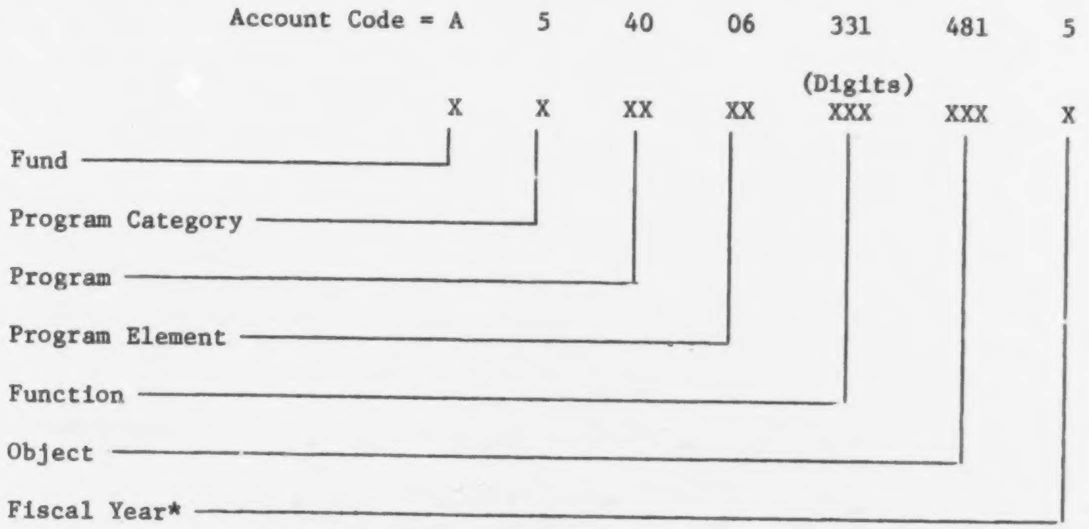
The account code structure necessary to support the requirements of PPBS and the line-item controls will vary depending on the Program Structure adopted by a district and the type of accounting equipment used. Prior to establishing a new account code structure, a clear understanding of the budgeting and accounting process must exist. The roles of various personnel, the degree of budget decentralization, and the reports required should be resolved.

To facilitate the line-item budget conversion into a Program Budget, the following areas need to be identifiable by the coding system:

1. Fund - *Single space for a letter.*
2. Program Category - *Single-digit space.*
3. Program - *Two digit spaces.*
4. Program Element - *Three digit spaces.*
5. Function - *Three digit spaces.*
6. Object - *Three digit spaces.*

The new coding structure should be designed to be flexible because of the changing nature of the Program Structure. Some school districts can develop an adequate coding structure by simply adding more digits to their present coding system.

Here is an *illustrative* account code structure:



*Optional - Desirable but not necessary.

Such a structure allows for account of expenditures by Program in that it keys the accounting ledger system to the appropriate Program Category, Program, and Program Element.

Examples:

A	2					INSTRUCTIONAL PROGRAM CATEGORY
A	2	20				Junior High School Program
A	2	20	02			Language Arts Program Element
A	2	20	02	220	112	Teachers Salaries
A	2	20	02	220	611	Fringe Benefits
A	2	20	02	220	301	Supplies
A	2	20	02	220	200	Equipment

- or -

A	4					OPERATIONAL SUPPORT PROGRAM CATEGORY
A	4	51				Business Services Program
A	4	51	01			Purchasing Program Element
A	4	51	01	130	150	Clerical Salaries
A	4	51	01	130	613	Fringe Benefits
A	4	51	01	130	301	Supplies
A	4	51	01	130	200	Equipment

Using the illustrative code:

- A 2 20 indicates *General Fund* (A), *Instructional Program Category* (2), *Junior High School Program* (20).
- A 4 51 01 130 150 indicates *General Fund* (A), *Operational Support Program Category* (4), *Business Services Program* (51), *Purchasing Program Element* (01), *Clerical function* (130), *Salaries object* (150).

When completed, the account code is forwarded to the Assistant Superintendent for Research and Planning as input for Flow Chart Steps 6 and 7.

Assistant Superintendent
for Research and Planning

REVIEW ACCOUNT CODE WITH USERS FOR COMPLETENESS AND ACCURACY - Flow Chart Step 6

The *tentative account code* for relating a line-item budget to a Program Budget is next reviewed by potential users for completeness and accuracy. The School Business Administrator accomplishes this by presenting the account code to the same personnel interviewed in Flow Chart Step 3 to determine if the new account code:

1. Responds to specified *user needs*.
2. Is *complete*, in terms of current line-item and Program Budget documents.
3. Is *accurate*, in terms of fund, program, function and object designators.

The number of users interviewed, and the technique (small group, mail-out, etc.), will depend on the specific district. There is no "correct" model for Flow Chart Step 6. The Assistant Superintendent for Research and Planning can employ whatever interview structure serves the three purposes listed above most *effectively* and *efficiently* in *his* particular district.

DETERMINE CHANGES IN PRESENT DOCUMENTS AND NUMBER CODES REQUIRED BY THE NEW SYSTEM - Flow Chart Step 7

Some districts will be able to develop an adequate account code by simply adding more digits to their present coding structure. Other districts will have to make changes in their present system of documents and code numbers (e.g., budget request forms, purchase orders, invoices, etc.).

The Assistant Superintendent for Research and Planning is responsible for identifying the changes required by the new account code. His input for this identification is:

1. Information obtained in user interviews (Flow Chart Steps 3 and 6).
2. Review of the present and proposed account code structure.

The required changes are documented for presentation to the Chief School Officer.

Upon completion of Flow Chart Step 7, the proposed account code structure and listing of required changes are presented to the Chief School Officer for approval.

APPROVE NEW ACCOUNT CODE AND REQUIRED CHANGES - Flow Chart Step 8 (Chief School Officer)

IMPLEMENT NEW ACCOUNT CODE STRUCTURE - Flow Chart Step 9

Assuming approval of the account code and required changes by the Chief School Officer in Flow Chart Step 8, the Assistant Superintendent for Research and Planning is responsible for implementation of the new structure.

Implementation involves:

- *Disseminating general information* about the new account code to Business Office and other district personnel.
- *Training* users of the account code structure.
- Providing a list of account codes and any revised report/form codes to appropriate personnel.

A suggested basis for the dissemination of general information about the account code are its *objectives*, generated by the School Business Administrator in Flow Chart Step 4.

In training various account code users, the self-instructional lesson *PPBS and the School Business Office: Concepts and Procedures*, may prove useful, especially pages 16 and 17.

A *sample* implementation plan might look like this.

ACCOUNT CODE IMPLEMENTATION SCHEDULE

PERSONNEL Name/Role	NEED		ACTIVITY
	Information	Training	
Jacobs, Chief School Officer	✓		6/20 memo and individual briefing.
Leone, Program Director		✓	Seminar 1, 8/14/74, Pierce Elementary School
Barrett, Progrm Director		✓	" " "
Payton, Assist. Supt. for Evaluation	✓		6/20 memo and listing of account codes
Rentz, Program Element Coordinator		✓	8/22 Seminar, Brookvale Intermediate School